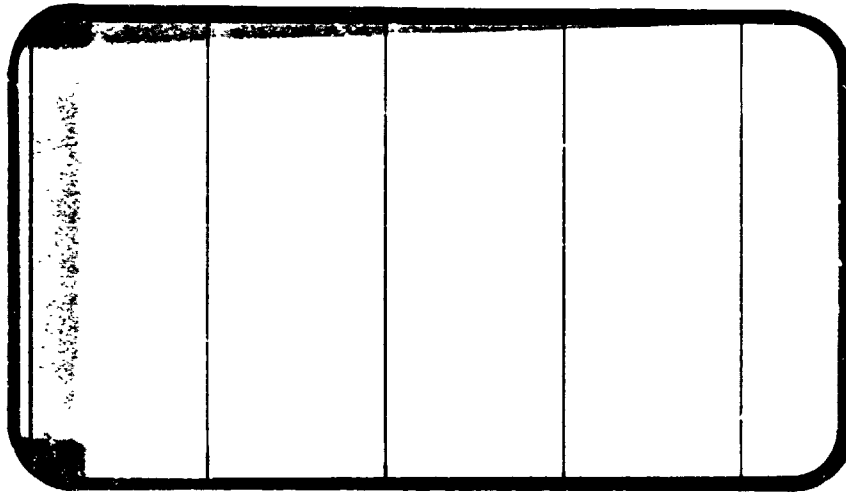


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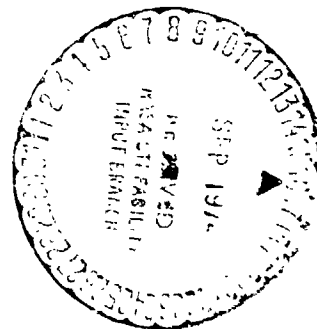
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**SPACE SHUTTLE**

**AEROTHERMODYNAMIC DATA REPORT**

**JOHNSON SPACE CENTER**

**HOUSTON, TEXAS**

**DATA MANAGEMENT services**

**SPACE DIVISION**



**CHRYSLER  
CORPORATION**

July, 1974

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INVESTIGATION OF SPACE SHUTTLE ORBITER  
SUBSONIC STABILITY AND CONTROL CHARACTERISTICS  
IN THE NAAL LOW SPEED WIND TUNNEL (OA62B)

VOLUME I

by

Robert Mennell and Terrance Hughes  
Rockwell International Space Division

Prepared under NASA Contract Number NAS9-15247

by

Data Management Services  
Chrysler Corporation Space Division  
New Orleans, La. 70189

for

Engineering Analysis Division  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas



WIND TUNNEL TEST SPECIFICS

Test Number: NAAL 717  
NASA Series Number: OA62B  
Test Dates: 14 November through 6 December 1973  
Model Number: 43-0

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INVESTIGATION OF SPACE SHUTTLE ORBITER  
SUBSONIC STABILITY AND CONTROL CHARACTERISTICS  
IN THE NAAL LOW SPEED WIND TUNNEL (OA62B)

By Robert Mennell and Terrance Hughes  
Rockwell International Space Division

ABSTRACT

Experimental aerodynamic investigations were conducted on a sting-mounted C.0405-scale representation (model 43-0) of the 140A/B Space Shuttle Orbiter in the Rockwell International 7.75- by 11-Foot Low Speed Wind Tunnel during the time period from 14 November 1973 to 6 December 1973. The NASA designation for this test period was OA62B.

The primary test objectives were to establish basic longitudinal stability characteristics in and out of ground effect as well as lateral-directional stability characteristics in free air.

Two dual podded nacelle configurations (ABPS) were also tested, one with three dual podded nacelles on the lower wing surface at fuselage station 950. This configuration was tested in and out of ground effect. The other ABPS configuration included a single dual nacelle on the lower centerline and another dual nacelle pylon mounted above each wing. The overwing nacelle/pylon was toed in 5 degrees toward the model centerline and the nacelle was rotated 7 degrees nose down. This configuration was tested in ground effect only.

Stability and control characteristics were investigated at nominal

elevon deflections of  $0^\circ$ ,  $5^\circ$ ,  $10^\circ$ ,  $15^\circ$ ,  $-5^\circ$ ,  $-10^\circ$ ,  $-15^\circ$ ,  $-20^\circ$ ,  $-30^\circ$  and  $-40^\circ$ ; rudder deflections of  $0^\circ$ ,  $-7.96^\circ$  and  $-16.22^\circ$ ; aileron deflections of  $0^\circ$ ,  $+5^\circ$ ,  $+10^\circ$ ,  $+15^\circ$  and  $-5^\circ$  used in conjunction with elevon deflections of  $0^\circ$ ,  $+5^\circ$ ,  $+10^\circ$ ,  $-5^\circ$ ,  $-10^\circ$  and  $-15^\circ$ ; rudder flare angles of  $0^\circ$ ,  $25^\circ$ ,  $40^\circ$ ,  $55^\circ$  and  $85^\circ$ ; and body flap deflections of  $0^\circ$ ,  $-11.7^\circ$ ,  $+16.3^\circ$  and  $+22.5^\circ$ .

The effects of various elevon and elevon/fuselage gaps on longitudinal stability and control were also investigated. Additional configurations tested included Reynolds number effect, boundary layer transition grit on and off, elliptical wing leading edge on the  $45^\circ$  swept portion of the wing, cargo bay door gaps and hinges, OMS pod gaps, vertical tail gaps and flow visualization.

Pressure bugs were used to determine pressures on the vertical tail at spanwise stations of  $\eta = 0.1228$ ,  $0.500$  and  $0.878$  and chordwise stations of  $x/c = 0.05$ ,  $0.15$ ,  $0.25$ ,  $0.45$ ,  $0.55$ ,  $0.65$ ,  $0.75$ , and  $0.90$ . These were installed at  $0^\circ$  and  $25^\circ$  rudder flare angles. An additional survey was made at  $0^\circ$  flare angle and OMS pods off. Rudder hingeline radii of  $2.09$  and  $4.94$  inches were investigated along with a  $6.12$ -inch radius contour on the rudder. Additional inputs to lateral-directional stability which were tested included a straight leading edge on the vertical tail and recontouring of the vertical tail airfoil section to a biconvex section.

Aerodynamic force and moment data were measured in the stability axis system by an internally mounted, six-component strain gage balance (MK IX,  $2.5$ -inch diameter). The model was sting-mounted with the center of rotation located at the trailing edge of the wing. The nominal angle of attack ( $\alpha$ )

range was from  $-4^{\circ}$  to  $+30^{\circ}$ . Yaw polars were recorded over a sideslip angle ( $\beta$ ) range of  $-10^{\circ}$  to  $+10^{\circ}$  at fixed angles of attack of  $0^{\circ}$ ,  $5^{\circ}$ ,  $10^{\circ}$ ,  $15^{\circ}$  and  $20^{\circ}$ .

This report is published in two volumes. Volume I contains Data Figures 4 through 71. Volume II contains Data Figures 72 through 128 and the Tabulated Source Data.

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Note: See next page for Plotted Coefficients Schedule.

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CL versus CLM  
CL versus CDF  
DCL, DCDF, DCLM, DCA, DCN versus DELVON
- (B) CL, CN, CAF, CAB, CDF, CLM, XCP/L, LF/DF versus ALPHA  
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CL versus CDF
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- (E) CY, CYN, CBL versus ALPHA  
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DCL, DCDF, DCLM, DCA, DCN versus BDFLAP
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DCY, DCYN, DCBL versus SPDBRK
- (H) CL, CDF, CLM, CY, CYN, CBL versus ALPHA  
DCY, DCYN, DCBL, DCA, DCN versus RUDDER
- (I) CY, CYN, CBL versus BETA
- (J) DCL, DCDF, DCLM, DCA versus DELVON

# NOMENCLATURE (Continued)

## Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$C_N$	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
$C_A$	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_{A_b}$	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
$C_{A_f}$	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
$C_n$	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

## Stability-Axis System

$C_L$	CL	lift coefficient; $\frac{\text{lift}}{qS}$
$C_D$	CD	drag coefficient; $\frac{\text{drag}}{qS}$
$C_{D_b}$	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
$C_{D_f}$	CDF	forebody drag coefficient; $C_D - C_{D_b}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
$C_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
$L/D$	L/D	lift-to-drag ratio; $C_L/C_D$
$L_f/D_f$	LF/DF	forebody lift-to-drag ratio $C_{L_f}/C_{D_f}$

NOMENCLATURE  
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C <sub>p</sub>	CP	pressure coefficient; $(p_l - p_\infty)/q$
M	MACH	Mach number; $V/a$
p		pressure; N/m <sup>2</sup> , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$ , N/m <sup>2</sup> , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
$\alpha$	ALPHA	angle of attack, degrees
$\beta$	BETA	angle of sideslip, degrees
$\psi$	PSI	angle of yaw, degrees
$\phi$	PHI	angle of roll, degrees
$\rho$		mass density; kg/m <sup>3</sup> , slugs/ft <sup>3</sup>

Reference & C.G. Definitions

A <sub>b</sub>		base area; m <sup>2</sup> , ft <sup>2</sup>
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\bar{c}$ <sub>REF</sub>	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m <sup>2</sup> , ft <sup>2</sup>
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
$\infty$	free stream

NOMENCLATURE (Continued)  
Additions To Standard Nomenclature

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Description</u>
ABPS		air breathing propulsion system
$A_{BC}$		balance cavity area, ft <sup>2</sup>
$C_{A_{BC}}$		balance cavity axial-force coefficient
$C_{A_N}$		nacelle internal duct drag axial-force coefficient correction
$C_{A_T}$		model weight tare axial-force coefficient correction
$C_{m_N}$		nacelle internal duct drag pitching-moment coefficient correction
$C_{m_u}$		balance measured pitching-moment coefficient
Flare	SPDBRK	speed brake deflection angle, degrees
$h/b_w$	H/BW	distance between wing trailing edge and ground plane, fraction of wing span
$P_{BC}$		balance cavity pressure, psia
$\delta_a$	AILRON	aileron deflection angle, degrees
$\delta_e$	ELEVON	elevon deflection angle, degrees
$\delta_{e_L}$	ELEV-L	left elevon deflection angle, degrees
$\delta_{e_R}$	ELEV-R	right elevon deflection angle, degrees
$\delta_f$	BDFLAP	body flap deflection angle, degrees
$\delta_R$	RUDDER	rudder deflection angle, degrees

# NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Description</u>
XCP/l	XCP/L	longitudinal center of pressure location; fraction of body length.
$\Delta C_A$	DCA	incremental axial force coefficient, algebraic difference of two runs.
$\Delta C_{D_F}$	DCDF	incremental forebody drag coefficient, algebraic difference of two runs
$\Delta C_L$	DCL	incremental lift coefficient, algebraic difference of two runs.
$\Delta C_m$	DCLM	incremental pitching moment coefficient, algebraic difference of two runs.
$\Delta C_N$	DCN	incremental normal force coefficient, algebraic difference of two runs.
$\Delta C_l$	DCBL	incremental rolling moment coefficient, algebraic difference of two runs.
$\Delta C_Y$	DCY	incremental side force coefficient, algebraic difference of two runs.
$\Delta C_n$	DCYN	incremental yawing moment coefficient, algebraic difference of two runs.
$C_{Y_\beta}$	CYBETA	derivative of side force coefficient with respect to beta (beta = $\pm 5^\circ$ ); per degree, body axis system.
$C_{n_\beta}$	CYNBET	derivative of yawing moment coefficient with respect to beta (beta = $\pm 5^\circ$ ); per degree, body axis system.
$C_{l_\beta}$	CBLBET	derivative of rolling moment coefficient with respect to beta (beta = $\pm 5^\circ$ ); per degree, body axis system.

## CONFIGURATIONS INVESTIGATED

The model used for this test period was an 0.0405-scale representation of the Rockwell International 140A/B Space Shuttle Orbiter. The basic model is of the blended wing-body design utilizing a double delta wing ( $75^\circ/45^\circ \Lambda_{L.E.}$ ), full span elevons (unswept hingeline), a centerline vertical tail with rudder and/or speed brake capability, a canopy, and an orbital maneuvering system (OMS). To test the orbiter in the ferry mission configuration, the OMS pods are removed and air breathing engines are located in various number/location combinations on the wing and fuselage.

During the air breathing propulsion system (ABPS) testing, the left hand engine pod was instrumented with an 8 tube static pressure and 17 tube total pressure rake located at each engine face station. This pressure instrumentation was used to determine engine pressure recovery and to check on the repeatability of nacelle inlet assembly.

For this test period the following nomenclature was used to designate the various model components:

<u>Component</u>	<u>Description</u>
B <sub>26</sub>	-140A/B fuselage
B <sub>52</sub>	B <sub>26</sub> with simulated cargo bay door gaps added
B <sub>53</sub>	B <sub>52</sub> with simulated cargo bay door hinges added
C <sub>9</sub>	-140A/B canopy
G <sub>15</sub>	Main and nose landing gear plus doors



M <sub>7</sub>	-140A/B orbital maneuvering system (OMS)
M <sub>50</sub>	M <sub>7</sub> with simulated gap
F <sub>8</sub>	-140A/B Orbiter body flap
W <sub>116</sub>	-140A/B Double delta wing (75°/45° <sub>L.E.</sub> )
W <sub>122</sub>	W <sub>116</sub> with elliptical lower surface L.E. on 45° sweep portion of wing
E <sub>26</sub>	-140A/B Solid elevon used on wing W <sub>116</sub>
E <sub>28</sub>	Elevon with midspan and elevon/fuselage baseline "Grumman" gap
E <sub>29-36</sub>	Elevons with various combinations of midspan and elevon/fuselage gaps. See Model Dimensional Data
J <sub>43</sub>	Air Breathing Propulsion System (ABPS) consisting of three underwing pylon mounted dual podded nacelles located at Fuselage Station 950
J <sub>62</sub>	Air Breathing Propulsion System (ABPS) consisting of a single centerline lower wing surface dual nacelle (FS 950) and a pylon-mounted dual nacelle above each wing (FS 1050)
V <sub>8</sub>	-140A/B vertical tail
V <sub>9</sub>	V <sub>8</sub> with vertical tail/rudder thermal expansion gap open
V <sub>12</sub>	Vertical tail used with rudder hingeline modification R <sub>7</sub>
V <sub>13</sub>	Vertical tail used with rudder hingeline modification R <sub>8</sub>
V <sub>14</sub>	Vertical tail used with rudder hingeline modification R <sub>9</sub>
V <sub>15</sub>	Vertical tail used with rudder R <sub>10</sub> modification

$V_{16}$	Same as $V_8$ except L.E. of vertical tail is extended forward at the vertical/fuselage intersection
$V_{17}$	Same as $V_8$ except contour forward of the rudder hingeline is modified to a biconvex section
$R_5$	-140A/B rudder used on vertical tail $V_8$
$R_7$	Same as $R_5$ except for 2.09 inch radius at rudder hingeline
$R_8$	Same as $R_5$ except for 4.94 inch radius at rudder hingeline
$R_9$	Same as $R_5$ except for 6.12 inch radius from rudder hingeline to rudder TE
$R_{10}$	Same as $R_9$ except the 6.12 inch radius is on the entire vertical aft of the rudder hingeline
$X_9$	Transition grit composed of glass beads located aft of all swept surfaces and model nose
$X_{10}$	Same as $X_9$ except also added to ABPS nacelles

## TEST FACILITY DESCRIPTION

The North American Aerodynamics Laboratory (NAAL) 7.75- by 11-Foot Wind Tunnel is a continuous flow, closed circuit, single return type tunnel capable of speeds up to 200 miles per hour. The test section is vented to atmospheric pressure and is 7.75 x 11 feet wide by 12 feet in length. Power is supplied by a 1250 horsepower nacelle-mounted synchronous motor driving a 19 foot, seven blade, laminated birch propeller. The airspeed is controlled by varying the degree of coupling between the motor and propeller by means of a magnetic clutch. A damping screen and honeycomb section in the settling chamber upstream from the contraction cone (ratio 7.53 to 1) minimizes turbulence in the test section. The NAAL Wind Tunnel has been in operation since June 1943 and calibrations are available over a wide range of test conditions.

Tests may be conducted using a variety of mounting systems; e.g., a single strut, double strut, sting strut, reflection plane, cable suspension, and two dimensional wall. Aerodynamic data may be measured by a planar type external balance system or sting mounted internal balances. An Astro-data Automatic Data Acquisition System is used to collect, multiplex, digitize, and record 50 channels of force and/or pressure data on magnetic tape. This data is then rapidly reduced and plotted using automatic data processing equipment and an automatic digital plotter.

## DATA REDUCTION

The aerodynamic force and moment data presented were measured by the Task Corporation 2.5-inch MK IX strain gage balance. The data have been corrected for model base and balance chamber pressure effects, nacelle internal drag, model blockage influence on tunnel dynamic pressure, wall interference effects, sting and balance deflections, and model weight tare.

The corrections made to axial force were accomplished in the following manner:

$$C_{A_F} = C_A - C_{A_{BC}} - C_{A_B} - C_{A_N} - C_{A_T}$$

where

$$C_{A_{BC}} = - \left( \frac{P_{SC} - P_o}{q} \right) \left( \frac{A_{BC}}{S_w} \right)$$

$$C_{A_B} = - \left( \frac{P_B - P_o}{q} \right) \left( \frac{A_B}{S_w} \right), \quad P_B = 1/5 (P_{B1} + \dots + P_{B5})$$

$C_{A_N}$  = nacelle internal drag correction

$C_{A_T}$  = model axial force weight tare

CONFIG.

$C_{A_N}$

J<sub>43</sub>

.002468

J<sub>62</sub>

.002449

The correction made to pitching moment to account for the nacelle internal drag was as follows:

$$C_m = C_{m_u} + C_{m_N}$$

where:

$C_{m_u}$  = uncorrected pitching moment

$C_{m_N}$  = nacelle internal drag correction

CONFIG.	$C_{m_N}$
$J_{43}$	0.00069
$J_{62}$	0.00012

The following reference dimensions were used for reducing all aerodynamic data to coefficient form:

<u>Symbol</u>	<u>Definition</u>	<u>Value</u>
$A_B$	Area of base (OMS on), $ft^2$	0.594
$A_B$	Area of base (OMS off), $ft^2$	0.440
$A_{BC}$	Area of balance cavity, $ft^2$	0.0985
$S_w$	Area of wing, $ft^2$	4.412
XMRP	Center of gravity, fus. sta., in	43.5974
ZMRP	Center of gravity, waterplane, in	15.1875
$L_B$	Length of orbiter body, in	52.257
$\bar{c}_w(LREF)$	Wing MAC, in	19.230
$b_w(BREF)$	Wing span, in	37.936

TABLE I.

[illegible]

TABLE II.

TEST: CA6CB

DATE: 27 10 72

DATA SET/RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES							NO. OF RUNS	MACH NUMBERS	
		$\alpha$	$\beta$	$\delta_a$	$\delta_e$	$\delta_{eL}$	$\delta_{eF}$	$\delta_c$	FLARE				
PDZRC1	BuG <sub>45</sub> M <sub>7</sub> FgW <sub>16</sub> EgV <sub>6</sub> R <sub>3</sub> X <sub>9</sub>	A	0°	0	0	0	0	0	0	25	1	1	
002												2	
003												3	
004												4	
005												5	
006												6	
007												7	
008												8	
009												9	
010												10	
011												11	
012												12	
013												13	
014												14	
015												15	
016												16	
017												17	
018												18	

TEST RUN NUMBER 45

7

13

19

25

31

37

43

49

55

61

67

73

CH

CCDF

ICLM

CN

CAF

CYN

GBL

CN

XCP/L

GAB

MACH

SEPPA

$\alpha$  OR  $\beta$

SCHEDULES

$\alpha(\lambda) = -4$

$(1, 2, 3, 4) = 30^\circ$

ADJ

IC (AR 11)

IC (AR 12)

TABLE II. - Continued.

TEST: CAGCB NAL 111										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 27 NOV 73	
DATA SET IDENTIFIER		CONFIGURATION		SCHD:		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS			



TABLE II. - Continued.

TEST: OAGCE		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 27 NOV 73	
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS/VALUES										NO. RUNS	MACH NUMBERS
		SCHD.	$\alpha$	$\beta$	$\gamma/\beta$	$\delta F$	$\delta a$	$\delta e_L$	$\delta e_R$	$\delta e$	FLARE		
RDZC37	B2d9G15M1F1M16E2aV2R3X9	D	0	0	0.68	11.7	0	-20	-20	0	25	1	37
O38								-15	-15				38
O39								-10	-10				39
O40								-5	-5				40
O41								+15	+15				41
O42								+10	+10				42
O43								+5	+5				43
O44								0	0				44
O45		E			.035								45
O46	E26												46
O49	E28												49
O50								+5	+5				50
O51								+10	+10				51
O52								+15	+15				52
O53	E26							+15	+15				53
O54	E26							+5	+5				54
O55	E28							-5	-5				55
O56	E26							10	-10				56
TEST RUN NUMBERS													
1	7	13	19	25	31	37	43	49	55	61	67	73	79
CH...CDF...CLM...CN...CAF...GUA...GFE...G...NGP/L...GAB...MACH...													
COEFFICIENTS $\alpha$ OR $\beta$ SCHEDULES $\alpha(E) = 11' \rightarrow 30'$ , $\Delta \alpha = 2'$ $\alpha(E) = 16' \rightarrow 30'$ , $\Delta \alpha = 2'$													

TABLE II. - Continued.

TEST : CAGLE														DATE : 27 NOV 70													
DATA SET / RUN NUMBER COLLATION SUMMARY																											
DATA SET IDENTIFIER	CONFIGURATION	SCHD.										PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS				
		$\alpha$	$\beta$	$h/b_0$	$\delta\alpha$	$\delta\alpha_L$	$\delta\alpha_R$	$\delta\alpha$	FLAGE	$\delta\alpha_L$	$\delta\alpha_R$	$\delta\alpha$	$\delta\alpha_L$	$\delta\alpha_R$	$\delta\alpha$	$\delta\alpha_L$	$\delta\alpha_R$	$\delta\alpha$									
RDZC 57	B <sub>24</sub> C <sub>6</sub> G <sub>5</sub> M <sub>1</sub> T <sub>8</sub> W <sub>11</sub> E <sub>2</sub> G <sub>6</sub> A <sub>2</sub> R <sub>5</sub> X <sub>0</sub>	E	0	.035	11.7	-10	-10	0	-10	-10	0	25	1					57									
058	E <sub>2</sub> E					-15	-15		-15	-15								58									
059						-20	-20		-20	-20								59									
060						-30	-30		-30	-30								60									
061						-40	-40		-40	-40								61									
062	B <sub>24</sub> C <sub>6</sub> G <sub>5</sub> M <sub>1</sub> T <sub>8</sub> W <sub>11</sub> E <sub>2</sub> G <sub>6</sub> A <sub>2</sub> R <sub>5</sub> X <sub>0</sub>					0	0		0	0								62									
063						0	0		0	0		0						63									
064						+15	+15		+15	+15								64									
065						-10	-10		-10	-10								65									
066						-20	-20		-20	-20								66									
067		C		.125		-20	-20		-20	-20								67									
068						-10	-10		-10	-10								68									
069						+15	+15		+15	+15								69									
070						0	0		0	0								70									
071						22.5												71									
072		A		.285	22.5													72									
073						-11.7												73									
074						-11.7												74									
TEST RUN NUMBERS																											
1	7	13	19	25	31	37	43	49	55	61	67	75	76														
CH	CDE	CEM	CN	CAI	SYN	CBL	EN	XCP	GFE	MAY	ALPHA																
COEFFICIENTS														IC (AR 11) IC (AR 12) IC													
$\alpha(A) = -4, -2, -1, 0, 1, 2 \rightarrow 30, \Delta\alpha = 2$														$\alpha(E) = 16 \rightarrow 28, \Delta\alpha = 2$													
$\beta(C) = 3, 4 \rightarrow 30, \Delta\beta = 2$														$\beta(A) = -10 \rightarrow +10, \Delta\beta = 2$													
SCHEDULES																											

TABLE II. - Continued.

TEST: OAG2B NAAL 717										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 27 NOV 73	
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS			

TABLE II. - Continued.

TEST: 0A62B NAAL 717										DATE: 27 NOV 73									
DATA SET / RUN NUMBER COLLATION SUMMARY																			
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES								NO. OF RUNS	MACH NUMBERS						
		n	B	δF	Ca	δL	δe	FLARE	δE	FLARE	δE		FLARE						
093	B2G5M7F8W10E2B85X6	10	A	-11.7	0	0	C		0	25	1		93						
094		15											94						
095		20											95						
096		A	0					+5	+5				96						
097								+10	+10				97						
098								+15	+15				98						
099								-5	-5				99						
100								-10	-10				100						
101								-15	-15				101						
102								-20	-20				102						
103								-30	-30				103						
104								-40	-40				104						
105	B2G5M7F8W10E2B85X6							-40	-40				105						
106								-30	-30				106						
107								-20	-20				107						
108								-15	-15				108						
109								-10	-10				109						
110	E26							-10	-10				110						
TEST RUN NUMBERS																			
1	7	13	19	25	31	37	43	49	55	61	67	73	79						
COEFFICIENTS																			
C OR B																			
SCALES																			
α(A) = -4, β(A) = -10, ΔB = 2																			
CDF CEM CN CAF CYN CBL CY XCP/5 CAB MACH 100000																			

TABLE II. - Continued.

TEST: OAG2B NAAL 717										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 27 NOV 73									
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS											
				$\alpha$ $\beta$		$\delta F$	$\delta G$	$\delta L$	$\delta R$	$\delta E$	FLAGE																		
RDZ 111		B26 G M7 F8 W16 E28 B5 X		A O		-11.7	0	-5	-5	C	25	1		.20															
112								+15	+15					111															
113		E26						+15	+15					112															
114		E28						+10	+10					113															
115								+5	+5					114															
116		E26						+5	+5					115															
117		E28						0	0					116															
118				-5 A										117															
119				0										118															
120				5										119															
121				10										120															
122				15										121															
123				20										122															
124		E26		A O										123															
125				O A										124															
126				5										125															
127				10										126															
128				15										127															
														128															
1	7	13	19	25	31	37	43	49	55	61	67	75.71	ALPHA																
CH CDF CLM CM CAF CMN GBL GY XSP/L CAB MAX													BETA																
COEFFICIENTS													10 (AR 1)		10 (AR 2)														
$\alpha(A) = -4, -2, 1, 0, 1, 2 \rightarrow 30, \Delta\alpha = 2$																													
$\beta(A) = -10 \rightarrow +10, \Delta\beta = 2$																													
$\alpha$ OR $\beta$																													
SCHEDULES																													

TABLE II. - Continued.

TEST: CA62B		NAAL 717		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 27 NOV 73	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES						NO. OF RUNS	MACH NUMBERS				
		$\alpha$	$\beta$	$\delta F$	$\delta s$	$\delta L$	$\delta R$	FLARE							
RDZ 129	B2G M7B M15B B05X9	20	A	-11.7	0	C	C	0	25	1	129				
130	E28	A	0			0	-30				130				
131						+5	-25				131				
132						+5	-5				132				
133						+10	-10				133				
134						+15	-15				134				
135						0	0				135				
136				16.3							136				
137				22.5							137				
138				-11.7					40		138				
139		0	A								139				
140		5									140				
141		10									141				
142		15									142				
143		20									143				
144		A	0						85		144				
145		C	A								145				
146		5	A								146				
TEST RUN NUMBERS															
1	7	13	19	25	31	37	43	49	55	61	67	73, 74			
C D F   F L M   C N   C A L   C Y N   C B L   C Y   X S P / L   C A B   M A C H   A L P H A															
COEFFICIENTS															
$\alpha(A) = -4, -3, -1, 0, 1, 2 \rightarrow 40, \Delta\alpha = 2$															
$\beta(A) = -10 \rightarrow +10, \Delta\beta = 2$															
SCHEDULES															
OR $\beta$															

TABLE II. - Continued.

TEST: OAG2B NAAL 717										DATE: 27 NOV 73									
DATA SET/RUN NUMBER COLLATION SUMMARY																			
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES								NO. OF RUNS	MACH NUMBERS				TEST RUN NUMBERS		
		$\alpha$	$\beta$	$\delta F$	$\delta G$	$\delta H$	$\delta I$	$\delta J$	$\delta K$	$\delta L$	$\delta M$	$\delta N$	$\delta O$	$\delta P$	$\delta Q$	$\delta R$			
RDZ 147	B <sub>2</sub> C <sub>4</sub> M <sub>7</sub> F <sub>3</sub> W <sub>1</sub> E <sub>28</sub> V <sub>8</sub> R <sub>5</sub> X <sub>9</sub>	10	A	-11.7								1							
148		15																	
149		20																	
150		A	O																
151																			
152																			
153																			
154																			
155																			
156																			
157																			
158																			
159																			
160																			
161																			
162																			
163																			
164																			

$\alpha$  OR  $\beta$  SCHEDULES  
 $X(A) = -4, -2, -1, 0, 1, 2 \rightarrow 30, A \neq 2$   
 $A(A) = -10 \rightarrow +10, A \neq 2$

TAB I II. - Continued.

TEST: OAG2B NAAL 717										DATE: 27 NOV 73									
DATA SET/RUN NUMBER COLLATION SUMMARY																			
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS	



TABLE II. - Continued.

TEST : OAG25 NAAL 717										DATE : 24 NOV 73									
DATA SET IDENTIFIER		CONFIGURATION	SCHD.		PARAMETERS/VALUES							NO. OF RUNS		MACH NUMBERS					
			$\alpha$	$\beta$	$\delta F$	$\delta G$	$\delta L$	$\delta R$	$\delta Q$	FLARE									
RDE183	B <sub>2</sub> G <sub>2</sub> M <sub>7</sub> F <sub>8</sub> W <sub>11</sub> E <sub>23</sub> V <sub>8</sub> P <sub>5</sub> X <sub>5</sub>	0 A	0	A	-11.7	0	0	0	0	-16.22	1	183							
184		5										184							
185		10										185							
186		15										186							
187		20										187							
188		A 0		A						-7.96 25		188							
189		0 A		A								189							
190		5										190							
191		10										191							
192		15										192							
193		20										193							
194		A 0		A						-16.22		194							
195		0 A		A								195							
196		5										196							
197		10										197							
198		15										198							
199		20										199							
200	B <sub>2</sub> G <sub>2</sub> M <sub>7</sub> F <sub>8</sub> W <sub>11</sub> E <sub>23</sub> V <sub>8</sub> P <sub>5</sub>	A 0		A						0 25		200							
TEST RUN NUMBERS																			
7	13	19	25	31	37	43	49	51	57	61	67	75	76						
CL	CPE	CLM	CN	CAF	CYN	ICBL	CV	IXCP	LCAE	MACH	ALPHA								
COEFFICIENTS																			
SCHEDULES																			
$\alpha(A) = -4, -2, -1, 0, 1, 2 \rightarrow 30, \Delta d = 2$																			
$\beta(A) = -10 \rightarrow +10, \Delta b = 2$																			

TABLE II. - Continued.

TEST: OAG28 NAAL 717										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 27 NOV 73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		α	β	δF	δG	δL	δC	δR	FLAGE	20	21	22	23		24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
RDZ 201	B26G9M7F8W11E28V8R5	A	O			-11.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</

TABLE II. - Continued.

TEST: CA62B NAAL 717		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 27 NOV 73	
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS
		SCD.	α	β	δF	δD	δL	δL	δL	δF	FLAGE		
RDZ 219	B2G5F8W116E28X	20	A		-11.7	C	0	0				1	220
220	B2G5F8W116E28X	A	C										219
221		C	A										220
222		5											221
223		10											222
226		15											223
225		20											226
227	B2G5F8W116E28X	A	O				-5	-5		0	0		225
228		A	O				0	0					227
229		O	A										228
230		5											229
231		10											230
232		15											231
233		20											232
240		A	O										233
241							+5	+5			25		240
242	E28						+5	+5					241
244							-10	-10					242
													244

TABLE II. - Continued.

TEST: CAC2B NAAL 717		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 10 DEC 73				
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
		$\alpha$	$\beta$	$\delta F$	$\delta a$	$\delta L$	$\delta R$	$\delta Q$	$\delta R$	FLAGE						
RDZ 245	B2C9M7F8W14E20VR5X9	A	O	-11.7	O	+15	O	+15	O	25	1			240		
246						O		O						245		
248	E30					O		O						246		
249						+5		+5						248		
250						-10		-10						249		
251	E31					-10		-10						250		
252						+5		+5						251		
253						+15		+15						252		
254						O		O						253		
256	E32													254		
256	E33													256		
257	E34													257		
258						+5		+5						259		
259						-10		-10						260		
260						+15		+15						260		
261	E35					O		O						261		
262	E36													262		
263	B2C9M7F8W14E20VR5X9													263		
TEST RUN NUMBERS																
1	CDF	13	19	25	31	37	43	49	55	61	67	73	79			
COEFFICIENTS																
SCHEDULES																
$\alpha(A) = -4, -2, -1, 0, 1, 2 \rightarrow 30, A, 1-2$																
$\beta(A) = -10 \rightarrow +10, AB = 2$																
C...CDF...CN...CAF...CYN...CB...CY...XSP/L...CAB...MAC...ALPHA...BETA...																

TABLE II. - Continued.

DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 10 DEC 73				
DATA SET IDENTIFIER		CONFIGURATION	SCHD.		PARAMETERS/VALUES							NO. OF RUNS	MACH NUMBERS	
			$\alpha$	$\beta$	$\delta F$	$\delta \alpha$	$\delta \alpha_L$	$\delta \alpha_R$	$\delta \epsilon$	FLAGE				
264	B32C9M7F8W116E28V6R5X9		0	A	-11.7	0	0	0	0	0	25	1	264	
265			5										265	
266			10										266	
267	B32C9M7F8W116E28V6R5X9		A	0									267	
268			0	A									268	
269			5										269	
270			10										270	
271			15										271	
272			20										272	
273	B32C9M7F8W116E28V6R5X9		A	0									273	
274			0	A									274	
275			5										275	
276			10										276	
277			15										277	
278			20										278	
279	B32C9M7F8W116E28V6R5X9		A	0									279	
280			0	A									280	
281			5	A									281	

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 73 79

CH CDF CLM CN CAF GYN CBL GY XCP/L CAB MACH ALPHA BETA

$\alpha$  OR  $\beta$   
SCHEDULES

$\alpha(A) = -4, -2, -1, 0, 1, 2, \dots, 20, \Delta\alpha = 2^\circ$   
 $\beta(A) = -10, \dots, +10, \Delta\beta = 2^\circ$

COEFFICIENTS

10 (A) 11 12 13

TABLE II. - Continued.

TEST: QAG2B NAAL 717		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 10 DEC 73	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES							NO. OF RUNS	MACH NUMBERS	
		C	B	ΔF	Δa	ΔeL	ΔeR	ΔR	FLAGE				
RDZ 282	B2G M5 FB W16 E28 V8 R5 X9	10	A	-11.7	0	0	0	0	25	1		280	
283		15										282	
284		20										283	
285	B2G M5 FB W16 E28 V8 R5 X9	A	O									284	
286		O	A									285	
287		5										286	
288		10										287	
289		15										288	
290		20										289	
291	B2G M7 FB W16 E28 V8 R5 X9	A	O									290	
292		O	A									291	
293		5										292	
294		10										293	
295		15										294	
296		20										295	
297	B2G M7 FB W16 E28 V8 R5 X9	A	O									296	
298		O	A						0			297	
299		5	A									298	
												299	

TEST RUN NUMBERS

7574

67

61

55

49

43

37

31

25

19

13

7

CH

CDF

ICLM

CN

CAF

CIN

CBL

CY

IXCP/L

ICAB

MACH

ALPHA

BETA

α OR β

SCHEDULES

α(A) = -4, -2, -1, 0, 1, 2 → 30, Δα = 2°

β(A) = -10 → +10, Δβ = 2°

IC (AR 11)

IC (AR 12)

IC

\*EST RUN NUMBERS

CLM CDF CLM CN CAF CN CBL CY XCP/L CAB MACH ALPHA

α OR β α(A) = -4, -2, -1, 0, 1, 2, 30, Δα = 2°

SCHEDULES β(A) = -10, +10, Δβ = 2°

IC (AR 11) 11 12 121 12

TABLE II. - Continued.

TEST : OAG2B

NASL 717

DATE : 10 DEC 73

DATA SET/RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS			
		$\alpha$	$\beta$	$\delta F$	$\delta L$	$\delta C$	$\delta R$	$\delta P$	$\delta Q$	$\delta S$	$\delta T$	$\delta U$	$\delta V$		$\delta W$	$\delta X$	$\delta Y$	$\delta Z$
RDZ 300	B28GM7 F8W116E28V8R5X9	10	A	-11.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
301		15																0.20
302		20																0.30
303	B28G9 F8W116E28V8R5X9	A	O															0.30
304		O	A															0.30
305		5																0.30
306		10																0.30
307		15																0.30
308		20																0.30
309	B28G65 M7F8J43W116E28V8	A	O															0.30
310	+ R5X10			22.5														0.30
311				-11.7														0.31
312																		0.32
313																		0.33
314	B28GM7 F8W122E28V8R5X9																	0.34
315		O	A															0.35
316		5																0.36
317		10																0.37

1

7

13

19

25

31

37

43

49

55

61

67

73

79

CL

CDF

CLM

CN

CAF

CAN

CBL

GY

IXCP

L

ICAB

MACH

ALPHA

BETA

ICVAR (1)

ICVAR (2)

ICVAR (3)

$\alpha$  OR  $\beta$

SCHEDULES

COEFFICIENTS

$\alpha(A) = -4, -2, -1, 0, 1, 2, \dots, 50$   
 $\beta(A) = -10, \dots, +10$

TABLE II. - Continued.

TEST: OAG2B NAAL 717										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 10 DEC 73									
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS											



TABLE II. - Continued.

TEST : OA-62B

NAAAL 717

DATE SET/RUN NUMBER COLLATION SUMMARY

DATE : 10 DEC 73

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
			$\alpha$	R	$\delta F$	$\delta \theta$	$\delta \phi_L$	$\delta \phi_E$	$\delta \epsilon$	FLARE	.2C	.26			
RDZ 337	BOLGMM-FRANKLIN-EGE VOR 34	C	A		-11.7	O		O	O	O	O	55	1		
338		F												338	
339		1C												339	
340		15												340	
341		20												341	
343		A	O												343
344		O	A												344
345		S													345
346		10													346
347		15													347
348		20													348
349		A	O												349
350		O	A									-7.96			350
351		S													351
352		10													352
353		15													353
354		20													354
355		A	O												355
												-16.22			356

TEST RUN NUMBERS

1

7

13

19

25

31

37

43

49

55

61

67

73

CLGDFICLMCNCAF CYN CBLGYKCP/LCABMASHAPPA

ICLAR (1)ICLAR (2)AD:

$\alpha(A) = -4, -2, -1, 0, 1, 2, \dots, 30, AD = 2^\circ$

$\beta(A) = -10, \dots, +10, AB = 2^\circ$

COEFFICIENTS

SCHEDULES

OR B

45

TABLE II. - Continued.

TEST: OAG2B NAAL 717		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 10 DEC 73	
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS
		SCHD.	$\alpha$	$\beta$	$\delta_1$	$\delta_2$	$\delta_3$	$\delta_4$	$\delta_5$	$\delta_6$	FLARE		
RDZ 392	B2C6M7F8M10E28M3P8V9	O	A		11.7		O		O	O	O	1	312
393		5											313
394		10											314
395		15											315
396		20											316
403	V4R8V9	A	O										403
404		O	A										404
405		5											405
406		10											406
407		15											407
408		20											408
409	V5R20V9	A	O										409
410		O	A										410
411		5											411
412		10											412
413		15											413
414		20											414
429	V6R5V9	A	O										429
TEST RUN NUMBERS													
1	7	13	19	25	31	37	43	49	55	61	67	73	79
CH... CDE... GCM... CN... CAF... CYN... CBL... CY... XCP/L... CAB... MACH... 10 VAR (1) 10 VAR (2) 10 VAR (3)													
$\alpha$ OR $\beta$		COEFFICIENTS											
SCHEDULES		$\alpha(A) = -4, -2, -1, 0, 1, 2, \dots, 30, \Delta\alpha = 2^\circ$ $\beta(A) = -10, \dots, +10, \Delta\beta = 2^\circ$											

TABLE II. - Concluded.

TEST: OAG2B NAAL 717										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 10 DEC 73									
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS											
												</																	

1 7 13 19 25 31 37 43 49 55 61 67 73 79  
 CDE...ICM...CN...CAF...CYN...CBL...CY...XCP/L...GAB...MACH...  
 G OR  $\beta$   $\alpha(A) = -4, -2, -1, 0, 1, 2, \dots, 30, \Delta\alpha = 2^\circ$   
 SCHEDULES  $\beta(A) = -10, \dots, +10, \Delta\beta = 2^\circ$   
 COEFFICIENTS  
 ICVAR (1) ICVAR (2) ICVAR (3)

TABLE III. - MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B<sub>26</sub>

GENERAL DESCRIPTION : Orbiter fuselage configuration 140 A/B

MODEL SCALE: 0.0405

DRAWING NUMBER : VL70-000193, VL70-000140A

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (Body nose @ $X_0=238.$ )-In.	<u>1290.30</u>	<u>52.257</u>
Max Width ( $X_0 = 1520$ In.) - In.	<u>262.00</u>	<u>10.611</u>
Max Depth ( $X_0 = 1464$ In.) - In.	<u>250.00</u>	<u>10.125</u>
Fineness Ratio	<u>4.925</u>	<u>4.925</u>
Area - Ft. <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>340.88</u>	<u>0.559</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III. = MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BODY - B<sub>52</sub>

GENERAL DESCRIPTION : Orbiter fuselage configuration 140 A/B with simulated cargo bay door gaps and thermal expansion joints. All gaps arc 1.50" deep (full scale); all longitudinal gaps are 0.500" wide (full scale); lateral gaps vary in width from 0.500 to 2.830" (Full scale).

MODEL SCALE: 0.0405

DRAWING NUMBER : VL70-000193, VL70-000140A

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (Body nose @ $X_0 = 238.0$ ) - In.	<u>1290.30</u>	<u>52.257</u>
Max Width ( $X_0 = 1520$ In.) - In.	<u>262.00</u>	<u>10.611</u>
Max Depth ( $X_0 = 1464$ In.) - In.	<u>250.00</u>	<u>10.125</u>
Fineness Ratio	<u>4.925</u>	<u>4.925</u>
Area - Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>340.88</u>	<u>0.559</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BODY - B<sub>53</sub>

GENERAL DESCRIPTION : Orbiter fuselage configuration 140 A/B with simulated cargo bay door hinges along waterplane Z<sub>0</sub> - 420.00( sill longeron).

MODEL SCALE: 0.0405

DRAWING NUMBER : VL70-000193, VL70-000140A

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (Body nose @ X <sub>0</sub> =238) - In.	<u>1290.30</u>	<u>52.257</u>
Max Width (X <sub>0</sub> = 1520 In.) - In.	<u>262.00</u>	<u>10.611</u>
Max Depth (X <sub>0</sub> = 1464 In.) - In.	<u>250.00</u>	<u>10.125</u>
Fineness Ratio	<u>4.925</u>	<u>4.925</u>
Area - Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>340.88</u>	<u>0.559</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

LONGITUDINAL LOCATION OF HINGES (FUS.STA.):

<u>FULL SCALE</u>	<u>MODEL SCALE</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
X <sub>0</sub> 602.50	24.401	X <sub>0</sub> 1033.40	41.853
669.80	27.127	1100.45	44.568
737.30	29.861	1144.20	46.340
783.55	31.734	1204.20	48.770
850.60	34.449	1264.20	51.200
917.65	37.165	1293.00	52.367
966.35	39.137		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : CANOPY - C<sub>0</sub>

GENERAL DESCRIPTION : Orbiter canopy Configuration used on BODY

B<sub>26</sub>

MODEL SCALE: 0.0405

DRAWING NUMBER : VL70-000140A, VL70-000143A

DIMENSIONS	FULL SCALE	MODEL SCALE
Length ( $X_0 = 434.64 \quad 670.00$ ) - In.	<u>235.36</u>	<u>9.532</u>
Max Width ( $X_0 = 513.13$ ) - In.	<u>152.41</u>	<u>6.173</u>
Max Depth ( $X_0 = 485.00$ - In.	<u>25.00</u>	<u>1.013</u>
Fineness Ratio	<u>                    </u>	<u>                    </u>
Area	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>



TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E<sub>26</sub>

GENERAL DESCRIPTION: Orbiter elevon configuration used on WING W16.

DOES NOT HAVE ELEVON GAPS.

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-000400, VL70-000140B

<u>DIMENSIONS:</u> (DATA FOR 1 OF 2 SIDES)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord - In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line)-Ft <sup>3</sup>	<u>851.15</u>	<u>0.057</u>

TABLE III. MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E28

GENERAL DESCRIPTION: Elevon configuration used with WING - W116, has a  
midspan gap and an elevon-fuselage gap. These two gaps are referred  
to as baseline Grumman gaps, configuration 1-A.

MODEL SCALE: 0.0405

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS: (DATA FOR 1 OF 2 SIDES)</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - $\text{Ft}^2$	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord - In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line) - $\text{Ft}^3$	<u>851.15</u>	<u>0.057</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E<sub>29</sub>

GENERAL DESCRIPTION: Elevon configuration used with WING - W<sub>116</sub> has a  
midspan gap and an alternate #1 elevon/fuselage gap, configuration  
1-B.

MODEL SCALE: 0.0405

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u> (DATA FOR 1 OF 2 SIDES):	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord - In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>-10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line)-Ft. <sup>3</sup>	<u>851.15</u>	<u>0.057</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E<sub>30</sub>

GENERAL DESCRIPTION: Elevon configuration used with WING, W<sub>116</sub>, has a  
mid-span gap and an alternate #2 elevon/fuselage gap. These two  
gaps are referred to as baseline Grumman gaps, configuration 1-C.

MODEL SCALE: 0.0405

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS: (DATA FOR 1 OF 2 SIDES)</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord - In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line) - Ft <sup>3</sup>	<u>851.15</u>	<u>0.057</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E<sub>31</sub>GENERAL DESCRIPTION: Elevon configuration used with WING, W<sub>116</sub>, has an  
alternate #1 midspan elevon gap, configuration 2A. (Baseline Grumman  
gap, configuration 2A).MODEL SCALE: 0.0405DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u> (DATA FOR 1 OF 2 SIDES)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - ft <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.1</u>	<u>14.918</u>
Inb'd equivalent chord - In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line) - ft <sup>3</sup>	<u>851.15</u>	<u>0.057</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E32

GENERAL DESCRIPTION: Elevon configuration used with WING, W<sub>116</sub>, has  
a midspan gap and an alternate #1 elevon/fuselage gap. These two  
gaps are referred to as baseline Grumman gaps, Configuration 2B.

MODEL SCALE: 0.0405

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u> (DATA for 1 OF 2 SIDES):	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - ft <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord - In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line)-ft <sup>3</sup>	<u>851.15</u>	<u>0.057</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E33

GENERAL DESCRIPTION: Elevon configuration used with WING, W116, has an  
alternate #2 midspan elevon gap, configuration 2B. This is baseline  
Grumman gap, configuration 2B.

MODEL SCALE: 0.0405

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u> (DATA FOR 1 OF 2 SIDES)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft. <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent)- In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord - In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>-10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line) -ft <sup>3</sup>	<u>851.15</u>	<u>0.057</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E<sub>34</sub>

GENERAL DESCRIPTION: Elevon configuration used with WING, W<sub>116</sub>, has an  
alternate #2 midspan elevon gap. This gap is referred to as baseline  
Grumman gap, Configuration 3A.

MODEL SCALE: 0.0405

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u> (DATA FOR 1 OF 2 SIDES)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - ft <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord - In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord- In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>- 10.056</u>	<u>-10.056</u>
Hinge line	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line)-ft <sup>3</sup>	<u>851.15</u>	<u>0.057</u>



TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E<sub>35</sub>

GENERAL DESCRIPTION: Elevon configuration used with WING, W<sub>116</sub>, has an  
alternate #1 elevon/fuselage gap. These two gaps are referred to  
as baseline Grumman gaps, Configuration 3B.

MODEL SCALE: 0.0405

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS: (DATA FOR 1 OF 2 SIDES)</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - ft <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord In.	<u>119.62</u>	<u>4.845</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>-10.056</u>	<u>-10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line) -ft <sup>3</sup>	<u>851.15</u>	<u>0.057</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E<sub>36</sub>

GENERAL DESCRIPTION: Elevon configuration used with WING, W<sub>116</sub>, has an  
alternate #2 elevon/fuselage gap. These gaps are referred to as  
baseline Grumman gaps, configuration 3C.

MODEL SCALE: 0.0405

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u> (DATA FOR 1 OF 2 SIDES)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ft <sup>2</sup>	<u>223.58</u>	<u>0.367</u>
Span (equivalent) - In.	<u>368.34</u>	<u>14.918</u>
Inb'd equivalent chord In.	<u>119.62</u>	<u>2.235</u>
Outb'd equivalent chord - In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.0</u>	<u>0.0</u>
Area Moment (Normal to hinge line) -ft <sup>3</sup>	<u>851.15</u>	<u>0.057</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BODY FLAP - F8

GENERAL DESCRIPTION : Orbiter body flap configuration used on

BODY - B26.

MODEL SCALE: 0.0405

DRAWING NUMBER VL70-000140B, VL70-000400

DIMENSIONS	FULL SCALE	MODEL SCALE
Length - In.	<u>94.86</u>	<u>3.842</u>
Max Width - In.	<u>262.31</u>	<u>10.623</u>
Max Depth - In.	<u>23.00</u>	<u>0.932</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area - Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>158.85</u>	<u>0.261</u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>47.90</u>	<u>0.069</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

COMPONENT MODEL: LANDING GEAR - G<sub>15</sub>GENERAL DESCRIPTION: Main and nose landing gear doors and assemblies.

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-000140A/SS-A00149

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
NOSE GEAR:		
No. wheels	<u>2</u>	<u>2</u>
Wheel axis:		
Fuselage Station	<u>374.407</u>	<u>15.177</u>
Waterline	<u>22.151</u>	<u>8.971</u>
Pivot axis:		
Fuselage Station	<u>366.458</u>	<u>15.208</u>
Waterline	<u>298.000</u>	<u>12.069</u>
Strut Diameter - In.	<u>7.72</u>	<u>0.3125</u>
Wheel diameter - In.	<u>32.000</u>	<u>1.296</u>
Wheel Width - In.	<u>8.790</u>	<u>0.356</u>
Wheel centerline-to-centerline width-In.	<u>22.000</u>	<u>0.891</u>
Side Door:		
Height (follows body contour) - In.	<u>18.518</u>	<u>0.75</u>
Leading Edge location, F.S.	<u>271.605</u>	<u>11.0</u>
Trailing Edge location, F.S.	<u>381.926</u>	<u>15.468</u>
MAIN GEAR:		
No. of wheels	<u>2</u>	<u>2</u>
Wheel axis:		
Fuselage Station	<u>44.247</u>	<u>1.792</u>
Waterline	<u>175.432</u>	<u>7.105</u>
Pivot Axis		
Fuselage Station	<u>1180.000</u>	<u>47.790</u>
Waterline	<u>283.012</u>	<u>11.462</u>
Main Strut Diameter - In.	<u>9.259</u>	<u>0.375</u>
Wheel Diameter - In.	<u>44.198</u>	<u>1.79</u>
Wheel Width - In.	<u>16.049</u>	<u>0.65</u>
Wheel centerline-to-centerline width-In.	<u>36.000</u>	<u>1.458</u>
Side Door:		
Length - In.	<u>148.148</u>	<u>6.00</u>
Width - In.	<u>61.728</u>	<u>2.50</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: AIR BREATHING PROPULSION SYSTEM - J43

GENERAL DESCRIPTION: Six underwing engines installed in three nacelle pods. Inlet has short cowl, 7° cowl lip angle, short flow diverter, and 7° diverter lip angle. Baseline engine position @ F.S. 950.

MODEL SCALE: 0.0405

DRAWING NO.: SS-A00139, SS-A01159

DIMENSION (EACH NACELLE):	FULL SCALE	MODEL SCALE
Length - In.	<u>209.51</u>	<u>8.485</u>
Max. Width - In.	<u>66.00</u>	<u>2.673</u>
Max. Depth - In.	<u>66.00</u>	<u>2.673</u>
Max. Pylon Width, In.	<u>19.75</u>	<u>0.800</u>
Area - In. <sup>2</sup>		
Max. Cross-Sectional	<u>2737.30</u>	<u>4.490</u>
Capture	<u>1900.92</u>	<u>3.118</u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

\*Nacelle Sta. 0.0 @

	WING PODS		C. PODS	
	Outboard	Inboard	Left	Right
Model Sta. - In.	<u>38.475</u>	<u>38.475</u>	<u>38.475</u>	<u>38.475</u>
Waterplane - In.	<u>9.665</u>	<u>9.655</u>	<u>9.310</u>	<u>9.310</u>
Buttock Plane - In.	<u>+ 11.583</u>	<u>+ 8.910</u>	<u>- 1.337</u>	<u>+ 1.337</u>
Incidence Angle - Deg.	<u>3.933</u>	<u>3.933</u>	<u>3.933</u>	<u>3.933</u>
Nacelle Clearance	<u>0.608</u>	<u>0.608</u>	<u>0.142</u>	<u>0.142</u>
Toe-In Angle	<u>5.000</u>	<u>5.000</u>	<u>0.0</u>	<u>0.0</u>

\*All numbers in model scale

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: AIR BREATHING PROPULSION SYSTEM - J<sub>62</sub>

GENERAL DESCRIPTION: Six engines installed in three nacelle pods, one centerline underwing, two overwing. Inlet has short cowl, 7° lip angle, short flow diverter, and 7° diverter lip angle. Baseline engine position @ F.S. 950 centerline and 1050 wing pods.

MODEL SCALE: 0.0405

DRAWING NUMBER: SS-00139, SS-A01159

DIMENSIONS (EACH NACELLE)	FULL SCALE	MODEL SCALE
Length - In.	<u>209.51</u>	<u>8.485</u>
Max. Width - In.	<u>66.00</u>	<u>2.673</u>
Max. Depth - In.	<u>66.00</u>	<u>2.673</u>
Max. Pylon Width - In.	<u>19.75</u>	<u>0.800</u>
AREA - ft <sup>2</sup>		
Max. Cross-Sectional	<u>2737.30</u>	<u>4.490</u>
Capture	<u>1900.92</u>	<u>3.118</u>

	WING PODS		CENTERLINE POD	
	Outb'd	Inb'd	Left	Right
*NACELLE STA. 0.0 @				
Model Sta. - In.	42.525	42.525	38.475	38.475
Waterplane - In.	15.180	15.180	9.310	9.310
Buttock plane - In.	+ 11.583	+ 8.910	- 1.337	+ 1.337
Incidence Angle - Deg.	- 7.000	- 7.000	3.933	3.933
Nacelle Clearance - In.	1.215	1.215	0.142	0.142
Toe-In Angle - Deg.	5.000	5.000	0.0	0.0

\*All numbers in model scale.

TABLE III. - MODEL DIMENSIONAL DATA \_ Continued.

MODEL COMPONENT : ORBITAL MANEUVERING SYSTEM PODS - M<sub>7</sub>

GENERAL DESCRIPTION : OMS Pods used on BODY - B<sub>26</sub>

MODEL SCALE: 0.0405

DRAWING NUMBER VL70-000140A, VL70-000145

DIMENSIONS	FULL SCALE	MODEL SCALE
Length (Fwd Sta. @ $X_0 = 1233.00$ ) In.	<u>327.00</u>	<u>13.244</u>
Max Width ( $X_0 = 1450.00$ ) - In.	<u>94.50</u>	<u>3.827</u>
Max Depth ( $X_0 = 1493.00$ ) - In.	<u>109.00</u>	<u>4.415</u>
Fineness Ratio	<u> </u>	<u> </u>
Area	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : ORBITAL MANEUVERING SYSTEM PODS - M<sub>50</sub>

GENERAL DESCRIPTION : Configuration 3A with thermal expansion joint gap, 2.930" wide and 1.50" deep (full scale).

MODEL SCALE: 0.0405

DRAWING NUMBER VI.70-000140A, VI.70-000145

DIMENSIONS	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta. $X_0=1233.0$ ) In.	<u>327.000</u>	<u>13.244</u>
Max Width (@ $X_0 = 1450.0$ ) - In.	<u>94.500</u>	<u>3.827</u>
Max Depth (@ $X = 1493.0$ ) - In.	<u>109.000</u>	<u>4.414</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>



TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R<sub>5</sub>

GENERAL DESCRIPTION: Orbiter rudder used on Vertical Tail, Vg. See

Figure 2 (Cont'd).

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-000095, SS-A00088

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - ft <sup>2</sup>	<u>106.38</u>	<u>0.174</u>
Span (equivalent) - in.	<u>201.00</u>	<u>8.141</u>
Inb'd equivalent chord - In.	<u>91.59</u>	<u>3.709</u>
Outb'd equivalent chord - In.	<u>50.83</u>	<u>2.059</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.830</u>	<u>34.830</u>
Trailing Edge	<u>26.250</u>	<u>26.250</u>
Hingeline	<u>34.830</u>	<u>34.830</u>
Area Moment (Normal to hinge line) ft <sup>3</sup>	<u>526.13</u>	<u>0.035</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R<sub>7</sub>GENERAL DESCRIPTION: Orbiter rudder used on Vertical Tail, V<sub>8</sub>, with a  
2.09 inch leading edge radius (at the rudder hingeline).MODEL SCALE: 0.0405DRAWING NUMBER: VL70-000095, SS-A00088

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - ft <sup>2</sup>	<u>106.38</u>	<u>0.174</u>
Span (equivalent) - In.	<u>201.00</u>	<u>8.141</u>
Inb'd equivalent chord - In.	<u>91.59</u>	<u>3.709</u>
Outb'd equivalent chord - In.	<u>50.83</u>	<u>2.059</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.830</u>	<u>34.830</u>
Tailing Edge	<u>26.250</u>	<u>26.250</u>
Hingeline	<u>34.830</u>	<u>34.830</u>
Area Moment (Normal to hinge line) -ft <sup>3</sup>	<u>526.13</u>	<u>0.035</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R<sub>8</sub>

GENERAL DESCRIPTION: Orbiter rudder used on Vertical Tail, V<sub>8</sub>, with a  
4.94 inch radius at the leading edge radius (at the rudder hingeline).

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-000095, SS-A00088

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ft <sup>2</sup>	<u>106.38</u>	<u>0.174</u>
Span (equivalent) - In.	<u>201.00</u>	<u>8.141</u>
Inb'd equivalent chord In.	<u>91.59</u>	<u>3.709</u>
Outb'd equivalent chord - In.	<u>50.83</u>	<u>2.059</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.830</u>	<u>34.830</u>
Trailing Edge	<u>26.250</u>	<u>26.250</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line) ft <sup>3</sup>	<u>526.13</u>	<u>0.035</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R<sub>9</sub>GENERAL DESCRIPTION: Orbiter rudder used on Vertical Tail, V<sub>8</sub>, with a  
6.12" radius contour aft of rudder hingeline to the trailing edge.MODEL SCALE: 0.0405DRAWING NUMBER: VL70-000095, SS-A00088

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - ft <sup>2</sup>	<u>106.38</u>	<u>0.175</u>
Span (equivalent) - In.	<u>201.00</u>	<u>8.141</u>
Inb'd equivalent chord - In.	<u>91.59</u>	<u>3.709</u>
Outb'd equivalent chord - In.	<u>50.83</u>	<u>2.059</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.830</u>	<u>34.830</u>
Trailing Edge	<u>26.250</u>	<u>26.250</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line) -ft <sup>3</sup>	<u>526.13</u>	<u>0.035</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R<sub>10</sub>

GENERAL DESCRIPTION: Orbiter rudder used on Vertical Tail, V<sub>8</sub>, with a  
6.12-inch radius contour extending from the root to the tip chord of  
the vertical tail aft of the rudder hingeline.

MODEL SCALE: 0.0405DRAWING NUMBER: VL70-000095, SS-A00088

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - ft <sup>2</sup>	<u>106.38</u>	<u>0.175</u>
Span (equivalent) - In.	<u>201.00</u>	<u>8.141</u>
Inb'd equivalent chord - In.	<u>91.59</u>	<u>3.709</u>
Outb'd equivalent chord - In.	<u>50.83</u>	<u>2.059</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.830</u>	<u>34.830</u>
Trailing Edge	<u>26.250</u>	<u>26.250</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line) -ft <sup>3</sup>	<u>526.13</u>	<u>0.035</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V8GENERAL DESCRIPTION: Centerline vertical tail with rudder and/or speed brake  
capability.MODEL SCALE: 0.0405DRAWING NUMBER: VL70-000140A, VL70-000146A, SS-A00088

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.25</u>	<u>0.678</u>
Span (Theo) - In	<u>315.72</u>	<u>12.787</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>25.947</u>	<u>25.947</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords: - In.		
Root (Theo) WP	<u>268.50</u>	<u>10.874</u>
Tip (Theo) WP	<u>108.47</u>	<u>4.393</u>
MAC	<u>199.81</u>	<u>8.092</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>59.272</u>
W. P. of .25 MAC	<u>635.52</u>	<u>25.738</u>
B. L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg	<u>10.000</u>	<u>10.000</u>
Trailing Wedge Angle - Deg	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius - % Chord	<u>1.466</u>	<u>1.466</u>
Void Area	<u>13.17</u>	<u>0.022</u>
Blanketed Area		

TABLE III. -- MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>9</sub>GENERAL DESCRIPTION: Centerline vertical tail with rudder and/or speed brake capability and with groove along the rudder hingeline.MODEL SCALE: 0.0405

DRAWING NUMBER:

VL70-000140A, VL70-000146A, SS-A00088DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.25</u>	<u>0.678</u>
Span (Theo) - in	<u>315.72</u>	<u>12.787</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>25.947</u>	<u>25.947</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>10.874</u>
Tip (Theo) WP	<u>108.47</u>	<u>4.393</u>
MAC	<u>199.81</u>	<u>8.092</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>59.272</u>
W. P. of .25 MAC	<u>635.52</u>	<u>25.738</u>
B. L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil Section		
Leading Wedge Angle - Deg	<u>10.000</u>	<u>10.000</u>
Trailing Wedge Angle - Deg	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>1.466</u>	<u>1.466</u>
Void Area	<u>13.17</u>	<u>0.022</u>
Blanketed Area		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>12</sub>GENERAL DESCRIPTION: Centerline vertical tail with rudder and/or speed brake  
capability with a 2.09 inch radius at rudder hingeline. Used withRUDDER - R<sub>7</sub>.MODEL SCALE: 0.0405DRAWING NUMBER: VL70-000140A, VL70-000146A, SS-A00088

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo) - Ft <sup>2</sup>		
Planform	413.25	0.678
Span (Theo) - In	315.72	12.787
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep Back Ang <sup>les</sup> , degrees		
Leading Edge	45.000	45.000
Trailing Edge	25.947	25.947
0.25 Element Line	41.130	41.130
Chords:		
Root (Theo) WP	268.50	10.874
Tip (Theo) WP	108.47	4.393
MAC	199.81	8.092
Fus. Sta. of .25 MAC	1463.50	59.272
W. P. of .25 MAC	635.52	25.738
B. L. of .25 MAC	0.0	0.0
Airfoil Section		
Leading Wedge Angle - Deg	10.000	10.000
Trailing Wedge Angle - Deg	14.920	14.920
Leading Edge Radius	1.466	1.466
Void Area	13.17	0.022
Blanketed Area		



TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>15</sub>

GENERAL DESCRIPTION: Centerline vertical tail with rudder and/or speed brake  
capability and 4.94 inch radius at rudder hingeline. Used with

RUDDER - R<sub>C</sub>

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-000140A, VL70-000140A, SS-A00008

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.25</u>	<u>4.678</u>
Span (Theo) - In	<u>315.72</u>	<u>12.787</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>25.947</u>	<u>25.947</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>10.874</u>
Tip (Theo) WP	<u>108.47</u>	<u>4.393</u>
MAC	<u>199.81</u>	<u>8.092</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>59.272</u>
W. P. of .25 MAC	<u>635.52</u>	<u>25.738</u>
B. L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg	<u>10.000</u>	<u>10.000</u>
Trailing Wedge Angle - Deg	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>1.466</u>	<u>1.466</u>
Void Area	<u>13.17</u>	<u>0.022</u>
Blanketed Area		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>14</sub>GENERAL DESCRIPTION: Centerline vertical tail with rudder and/or speed brake  
capability with 6.12 inch radius contour on rudder aft of hingelinebetween W.L. 7.000 and W.L. 15.350. Used with RUDDER - R<sub>9</sub>MODEL SCALE: 0.0405DRAWING NUMBER:VL70-000140A, VL70-000146A, SS-A00088DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area (Theo) - Ft <sup>2</sup>		
Planform	413.25	0.678
Span (Theo) - In	315.72	12.787
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	25.947	25.947
0.25 Element Line	41.130	41.130
Chords:		
Root (Theo) WP	268.50	10.874
Tip (Theo) WP	108.17	4.393
MAC	199.81	8.092
Fus. Sta. of .25 MAC	1463.50	59.272
W. P. of .25 MAC	635.52	25.731
B. L. of .25 MAC	0.0	0.0
Airfoil Section		
Leading Wedge Angle - Deg	10.000	10.000
Trailing Wedge Angle - Deg	14.920	14.920
Leading Edge Radius	1.466	1.466
Void Area	13.17	0.022
Blanketed Area		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>15</sub>GENERAL DESCRIPTION: Centerline vertical tail with rudder and/or speed brake capability with 6.12 inch radius contour extending from root to tip aft of hingeline. Used with RUDDER - R<sub>10</sub>MODEL SCALE: 0.0405DRAWING NUMBER: VL70-000140A, VL70-000146A, SS-A00088

<u>DIMENSIONS:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.25</u>	<u>0.678</u>
Span (Theo) - In	<u>315.72</u>	<u>12.787</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>25.947</u>	<u>25.947</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>10.874</u>
Tip (Theo) WP	<u>108.47</u>	<u>4.393</u>
MAC	<u>199.81</u>	<u>8.092</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>59.272</u>
W. P. of .25 MAC	<u>635.52</u>	<u>25.738</u>
B. L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg	<u>10.000</u>	<u>10.000</u>
Trailing Wedge Angle - Deg	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>1.466</u>	<u>1.466</u>
Void Area	<u>13.17</u>	<u>0.022</u>
Blanketed Area		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>16</sub>

GENERAL DESCRIPTION: Centerline vertical tail with rudder and/or speed  
brake capability with the vertical tail leading edge extended forward  
at the vertical/fuselage intersection.

MODEL SCALE: 0.0405

DRAWING NUMBER:

VI70-000140A, VI70-000146A, SS-A00088DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.25</u>	<u>0.678</u>
Span (Theo) - In	<u>315.72</u>	<u>12.787</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>25.947</u>	<u>25.947</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>10.874</u>
Tip (Theo) WP	<u>108.47</u>	<u>4.393</u>
MAC	<u>199.81</u>	<u>8.092</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>59.272</u>
W. P. of .25 MAC	<u>635.52</u>	<u>25.738</u>
B. L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg	<u>10.000</u>	<u>10.000</u>
Trailing Wedge Angle    Deg	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>1.466</u>	<u>1.466</u>
Void Area	<u>13.17</u>	<u>0.022</u>
Blanketed Area		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>17</sub>

GENERAL DESCRIPTION: Centerline vertical tail with rudder and/or speed brake  
capability with the contour forward of the rudder hingeline modified  
to a biconvex section.

MODEL SCALE: 0.0405

DRAWING NUMBER: VI70-000140A, VI70-000146A, SS-00088

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo) - Ft<sup>2</sup>

Planform

413.25

0.678

Span (Theo) - In

315.72

12.787

Aspect Ratio

1.675

1.675

Rate of Taper

0.507

0.507

Taper Ratio

0.404

0.404

Sweep Back Angles, degrees

Leading Edge

45.000

45.000

Trailing Edge

25.947

25.947

0.25 Element Line

41.130

41.130

Chords:

Root (Theo) WP

268.50

10.874

Tip (Theo) WP

108.47

4.393

MAC

199.81

8.092

Fus. Sta. of .25 MAC

11463.50

59.272

W. P. of .25 MAC

635.52

25.738

B. L. of .25 MAC

0.0

0.0

Airfoil Section

Leading Wedge Angle - Deg

10.000

10.000

Trailing Wedge Angle - Deg

14.920

14.920

Leading Edge Radius

1.466

1.466

Void Area

13.17

0.022

Blanketed Area

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: WING-W<sub>122</sub>

GENERAL DESCRIPTION: Orbiter delta wing configuration used on BODY - B<sub>26</sub> with  
the addition of a lower surface ellipti l L.E. added to the 45° swept  
portion of the wing. Tangency points are at the L.E. and 30% chord element.  
No change made to the planform area. MODEL SCALE: 0.0405

TEST NO.

DWG. NO. VI.70-000112B VI.70-000400

## DIMENSIONS:

FULL SCALE

MODEL SCALE

## TOTAL DATA

Area (Theo.) - Ft<sup>2</sup>

Planform

2690.00

4.412

Span (Theo) - In.

936.68

37.936

Aspect Ratio

2.265

2.265

Rate of Taper

1.177

1.177

Taper Ratio

3.500

3.500

Dihedral Angle, degrees

0.500

0.500

Incidence Angle, degrees

3.000

3.000

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

45.000

45.000

Trailing Edge

- 10.056

- 10.056

0.25 Element Line

35.209

35.209

## Chords:

Root (Theo) B.P.O.O.

689.24

27.914

Tip, (Theo) B.P.

137.85

5.583

MAC

474.81

19.230

Fus. Sta. of .25 MAC

1126.72

45.632

W.P. of .25 MAC

291.00

11.786

B.L. of .25 MAC

187.33

7.587

## EXPOSED DATA

Area (Theo) - Ft<sup>2</sup>

1812.22

2.973

Span, (Theo) - In. BP108

736.68

29.836

Aspect Ratio

2.058

2.058

Taper Ratio

0.245

0.245

## Chords

Root BP108

570.62

23.110

Tip 1.00  $\frac{b}{2}$ 

137.85

5.583

MAC

354.24

14.345

Fus. Sta. of .25 MAC

1164.24

47.152

W.P. of .25 MAC

292.00

11.826

B.L. of .25 MAC

239.68

9.707

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root  $\frac{b}{2}$  = .425 Root %

11.3

11.3

Tip  $\frac{b}{2}$  = 1.000 Root %

12.0

12.0

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area Ft<sup>2</sup>

118.32

0.104

Leading Edge Intersects Fus M. L. @ Sta

505.00

20.453

Leading Edge Intersects Wing @ Sta

1084.5

43.92

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: <u>WING-W<sub>116</sub></u>		
GENERAL DESCRIPTION: <u>Orbiter delta wing configuration used on BODY - B<sub>26</sub></u>		
MODEL SCALE: <u>0.0405</u>		
TEST NO.	DWG. NO.	VL70-000140B VL70-000400
DIMENSIONS:	FULL-SCALE	MODEL SCALE
<b>TOTAL DATA</b>		
Area (Theo.) - Ft <sup>2</sup>		
Planform	2690.00	4.412
Span (Theo) - In.	936.68	37.936
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	3.000	3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	- 10.056	- 10.056
0.25 Element Line	35.209	35.209
<b>Chords:</b>		
Root (Theo) B.P.0.0.	689.24	27.914
Tip, (Theo) B.P.	137.85	5.583
MAC	474.81	16.230
Fus. Sta. of .25 MAC	1126.72	45.632
W.P. of .25 MAC	291.00	11.786
B.L. of .25 MAC	187.33	7.587
<b>EXPOSED DATA</b>		
Area (Theo) - Ft <sup>2</sup>	1812.22	2.973
Span, (Theo) In. BP108	736.68	29.836
Aspect Ratio	2.058	2.058
Taper Ratio	0.245	0.245
<b>Chords</b>		
Root BP108	570.62	23.110
Tip 1.00 $\frac{b}{2}$	137.85	5.583
MAC	354.24	14.345
Fus. Sta. of .25 MAC	1164.24	47.152
W.P. of .25 MAC	292.00	11.826
B.L. of .25 MAC	239.68	9.707
<b>Airfoil Section (Rockwell Mod NASA) XXXX-64</b>		
Root $\frac{b}{2}$ = .425 Root %	11.3	11.3
Tip $\frac{b}{2}$ = 1.000 Tip %	12.0	12.0
<b>Data for (1) of (2) Sides</b>		
Leading Edge Cuff $\frac{b}{2}$	118.33	0.194
Planform Area Ft <sup>2</sup>	505.00	20.453
Leading Edge Intersects Fus M. L. @ Sta	1084.5	43.92
Leading Edge Intersects Wing @ Sta		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: TRANSITION GRIT -  $X_9$

GENERAL DESCRIPTION: Grit composed of glass beads located aft of  
model nose and all swept surfaces to provide forced boundary layer  
transition. All dimensions are measured in the streamwise direction  
aft of the local leading edge.

Grit Diameter - In.

Fuselage	0.0054
----------	--------

Swept surfaces	0.0076
----------------	--------

Strip Width - In.	0.10
-------------------	------

Location aft of L.E., In.	1.00
---------------------------	------



TABLE III. - MODEL DIMENSIONAL DATA - Concluded.

MODEL COMPONENT: TRANSITION GRIT - X<sub>10</sub>

GENERAL DESCRIPTION: Grit composed of glass beads located aft of model nose, ABPS nacelles and all swept surfaces to provide forced boundary layer transition. All dimensions are measured in the streamwise direction aft of the local leading edge.

Grit diameter - In.

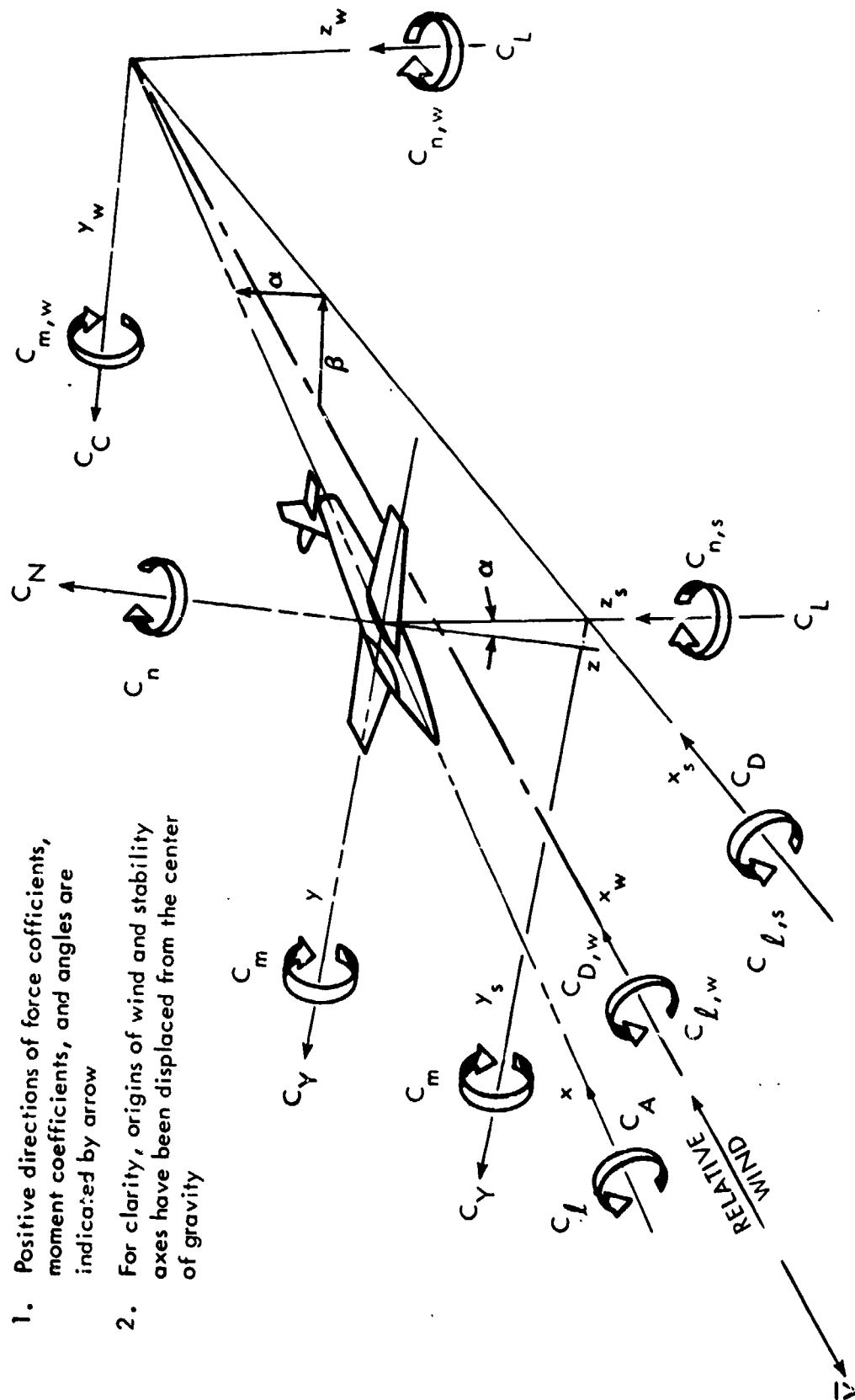
Fuselage	0.0054
Swept surfaces	0.0076
ABPS Nacelles	0.0076

Strip width - In.	0.10
-------------------	------

Location aft of cowl L.E.	1.00
---------------------------	------

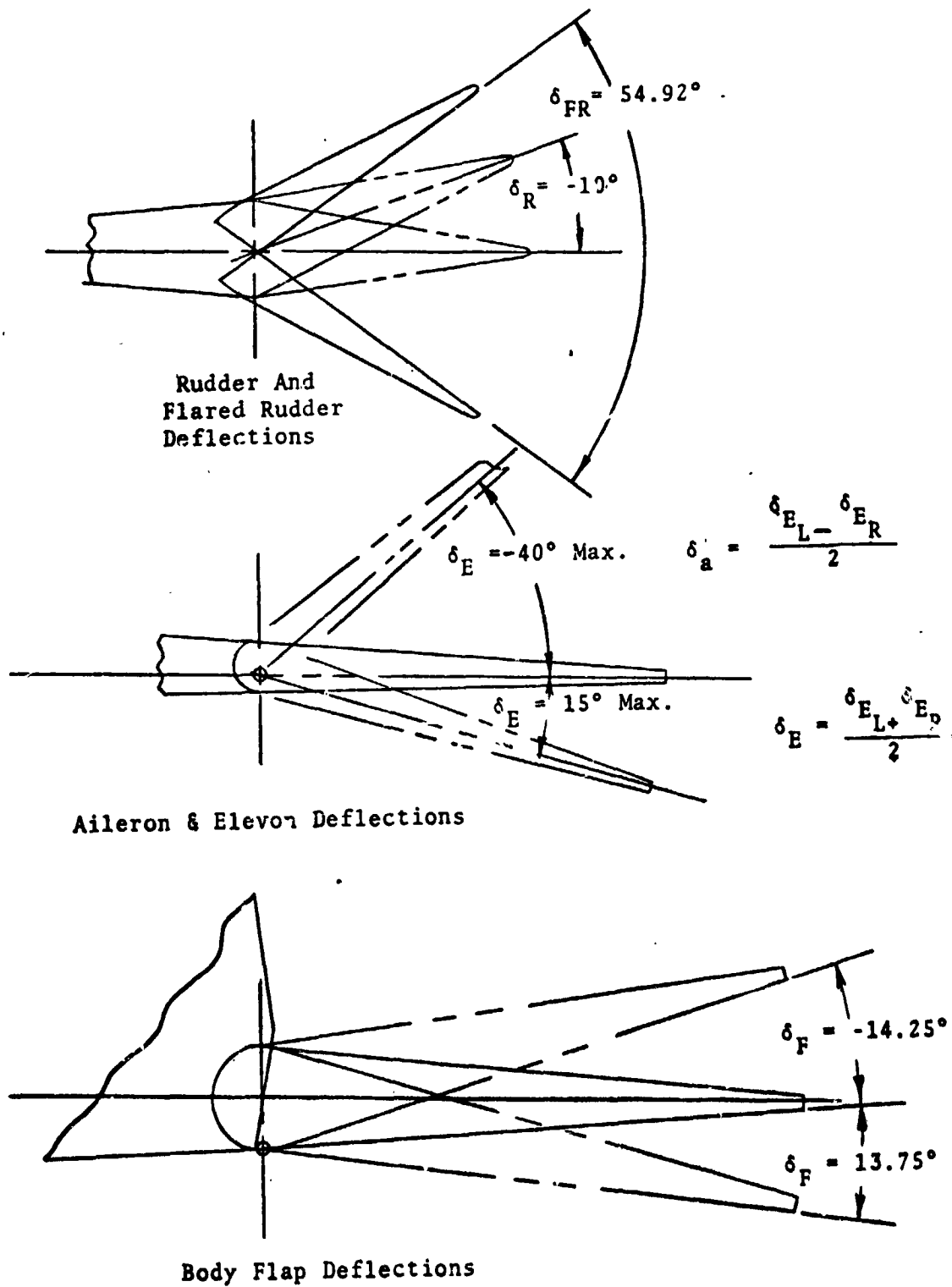
**Notes:**

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrow
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity



a. Body and stability axes

Figure 1. - Axis systems.

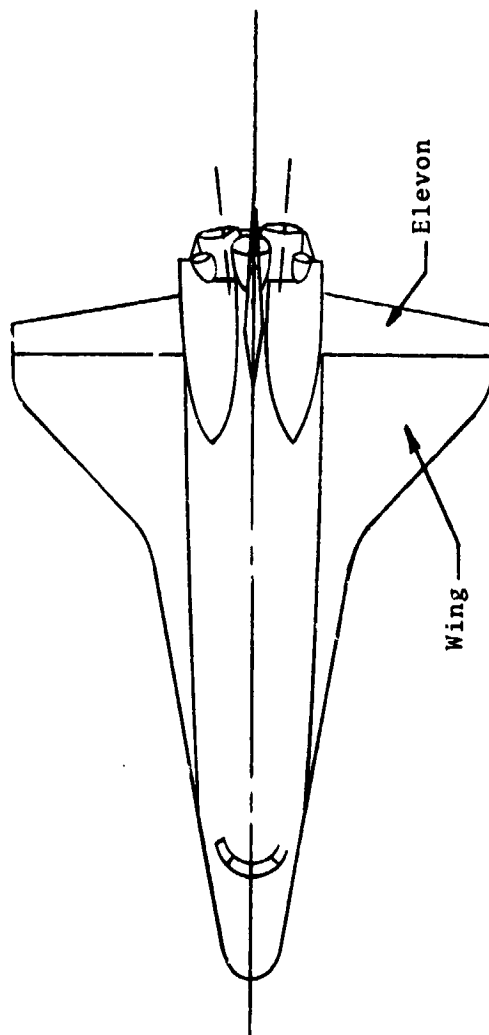


b. Sign convention for control surfaces.

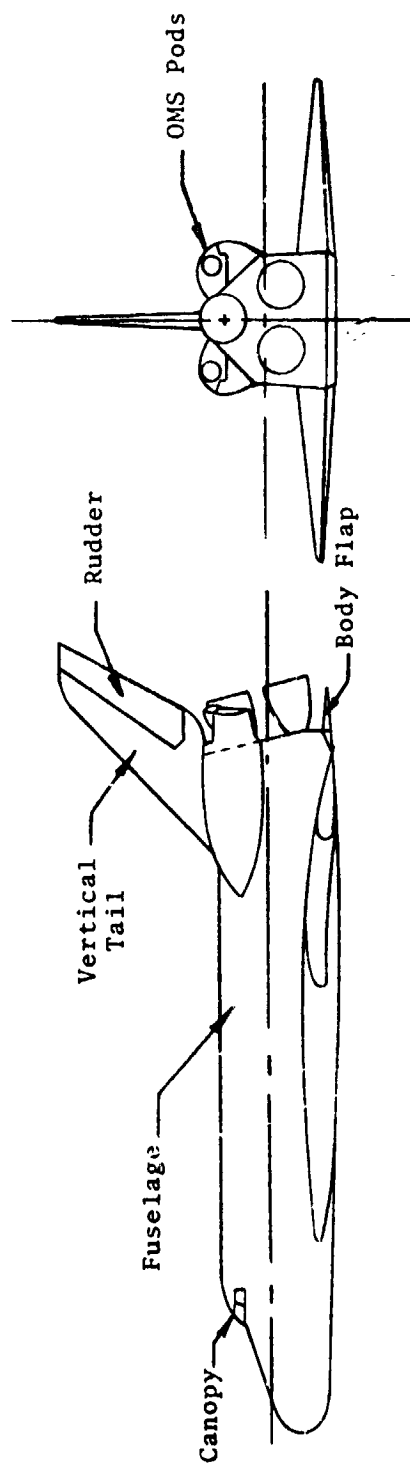
Figure 1. - Concluded.



Reference	Dimension
Area	$S_w = 2690 \text{ ft}^2$
MAC	$\bar{c}_w = 474.8 \text{ in}$
C.G.	$X = 1076.48 \text{ in}$
	$Z = 375.0 \text{ in}$
Span	$b_w = 936.68 \text{ in}$
Length	$L = 1290.3 \text{ in}$



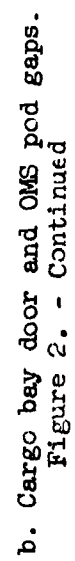
87

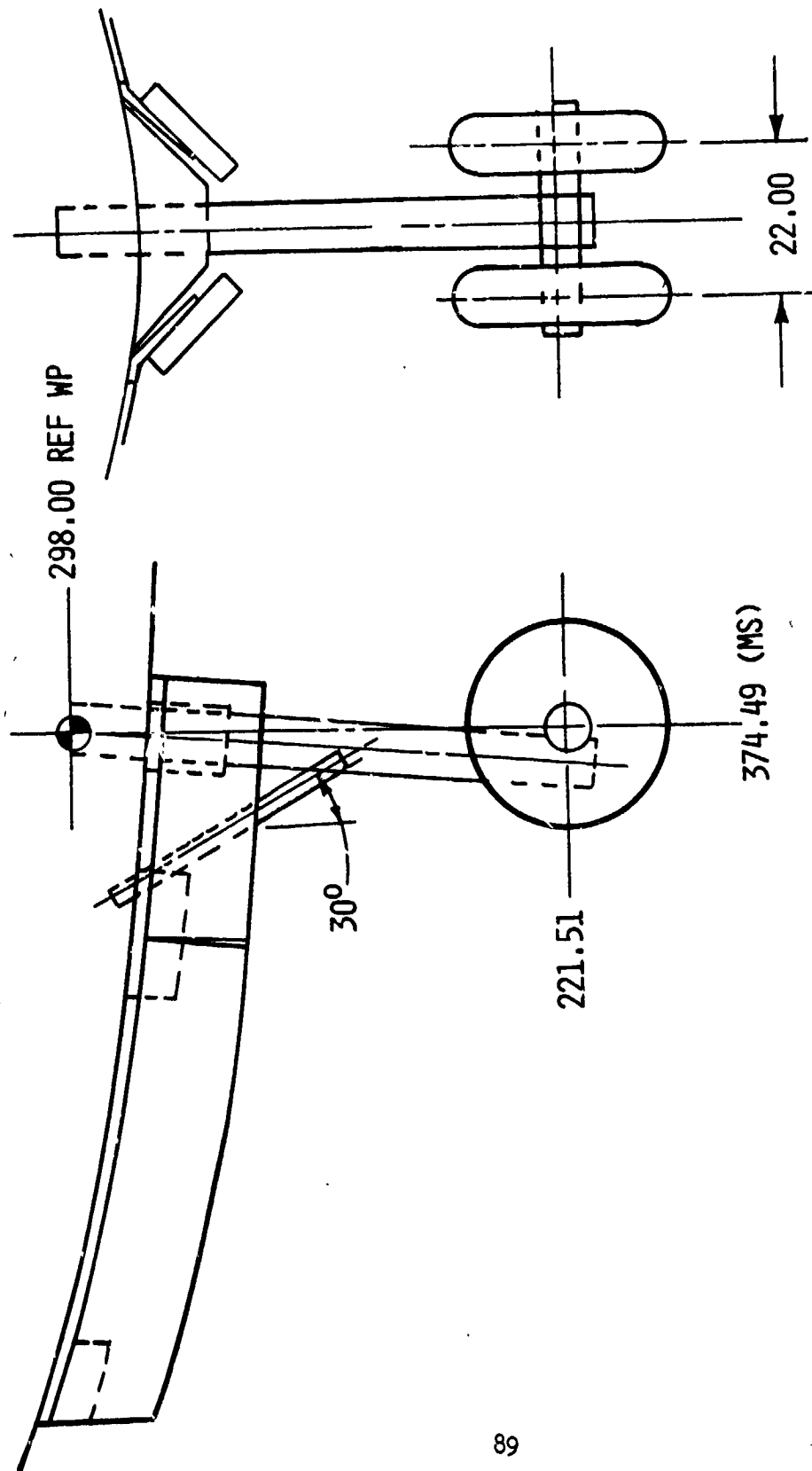


a. GENERAL ARRANGEMENT - 140 ORBITER.

Figure 2. - Model sketches.

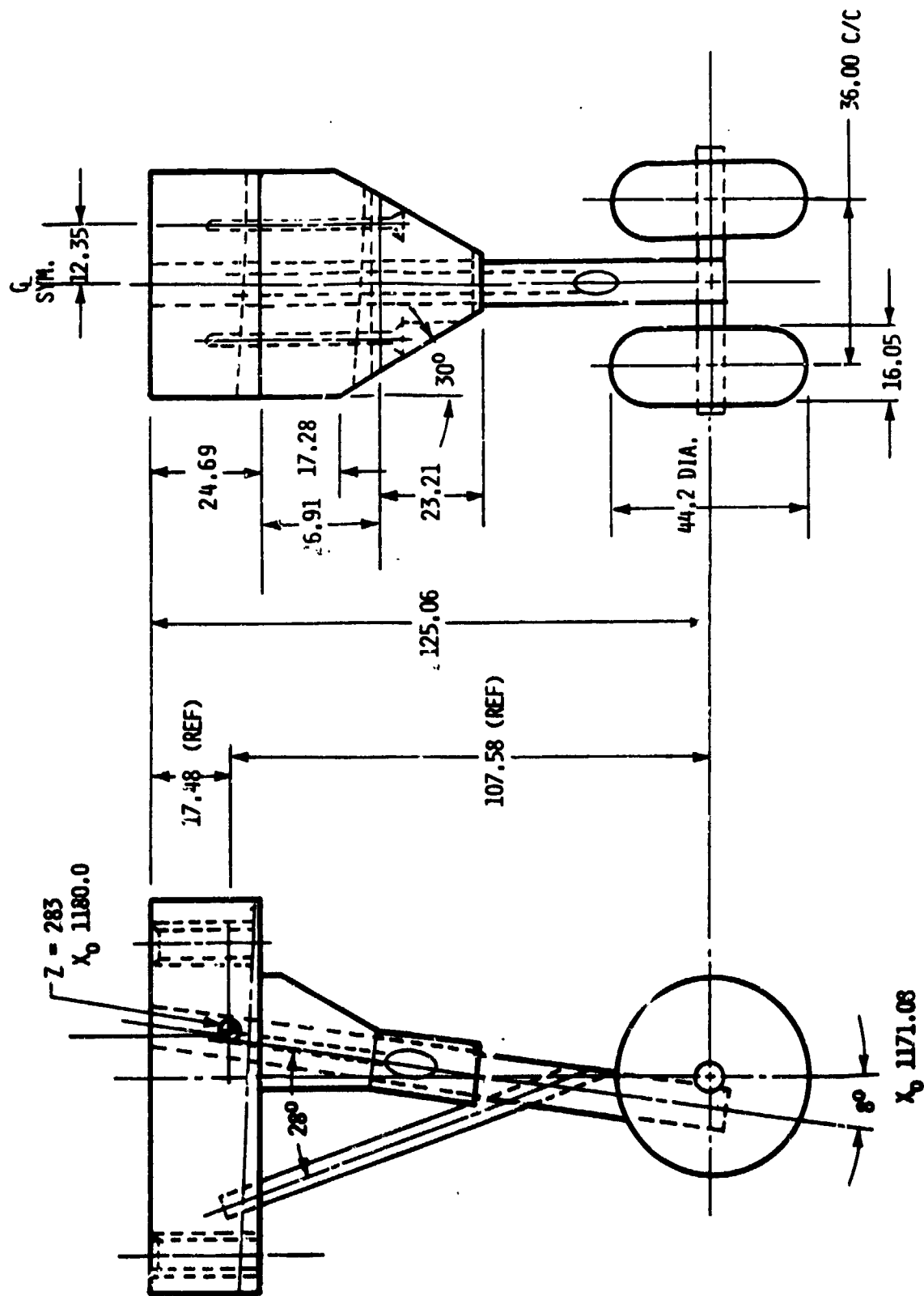
1.50 inches wide (BP 0.00) from FS 578.00 to FS 1307.00





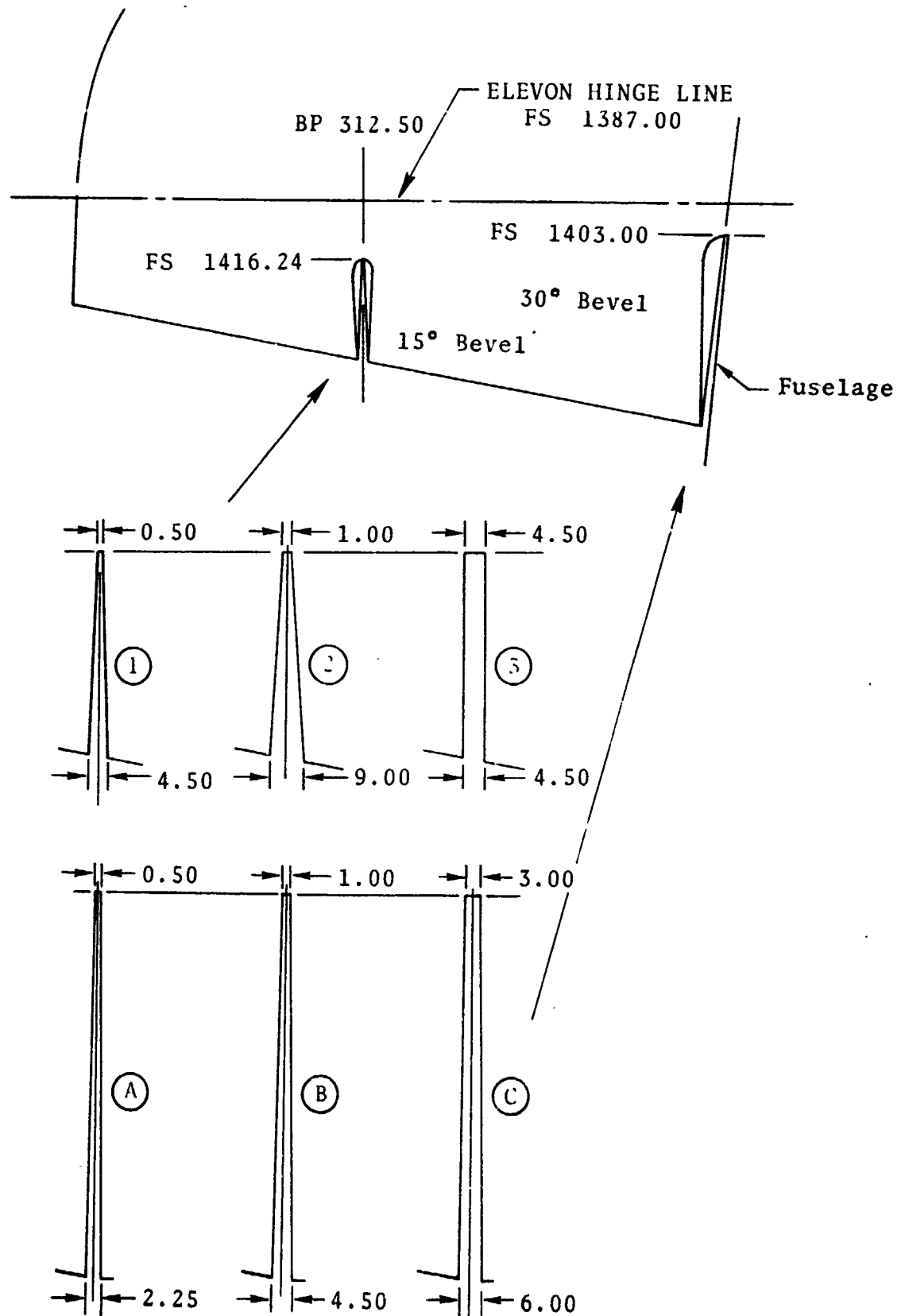
c. Nose landing gear,  $G_{15}$ .

Figure 2. - Continued.



d. Main landing gear, G15.

Figure 2. - Continued.

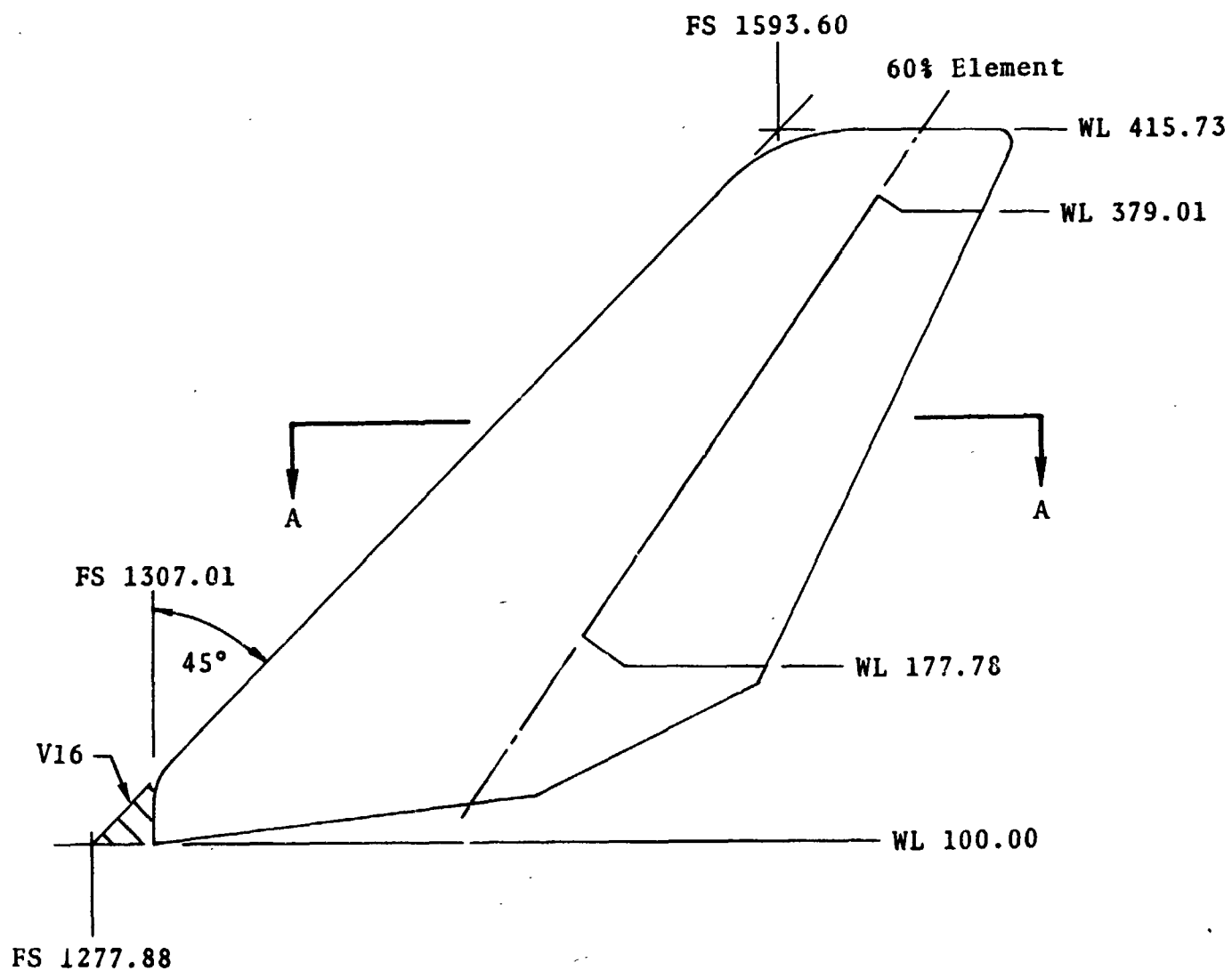


e. Elevon Gap configurations

Figure 2. - Continued.

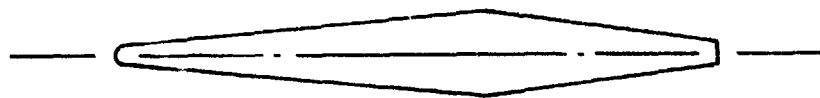
C-8





Dimensions are full scale

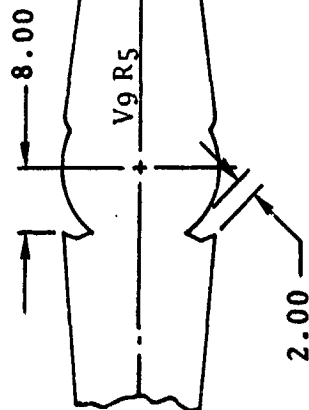
Section A-A



f. Vertical tail - V<sub>8</sub>, V<sub>16</sub>.

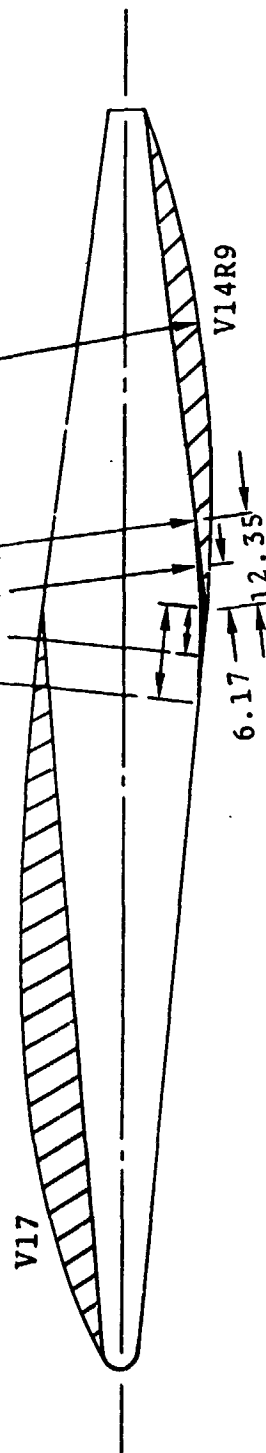
Figure 2. - Continued.

# Rudder Hingeline



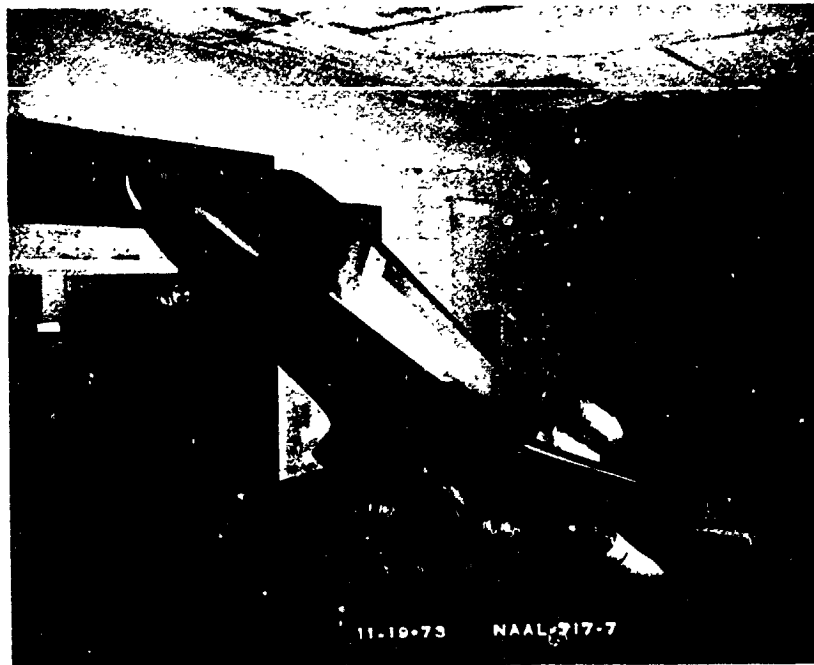
All contours are symmetrical

Dimensions are full scale



g. Vertical tail and rudder modifications.

Figure 2. - Concluded.



a. Ground plane in, overwing ABPS configuration



b. Free air, underwing ABPS configuration

Figure 3. - Model photographs.

DATA FIGURES

VOLUME I

See Volume II for Figures 72 thru 128  
and Tabulated Source Data listings.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02005)	0A628 B26C9G1SM7F8	-5.000	.285	25.000	-12.000	SREF 4.4119 SO.FT.
(B02001)	0A628 B26C9G1SM7F8	.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(B02002)	0A628 B26C9G1SM7F8	5.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(B02003)	0A628 B26C9G1SM7F8	10.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(B02004)	0A628 B26C9G1SM7F8	15.000	.285	25.000	-12.000	ZMRP 15.0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

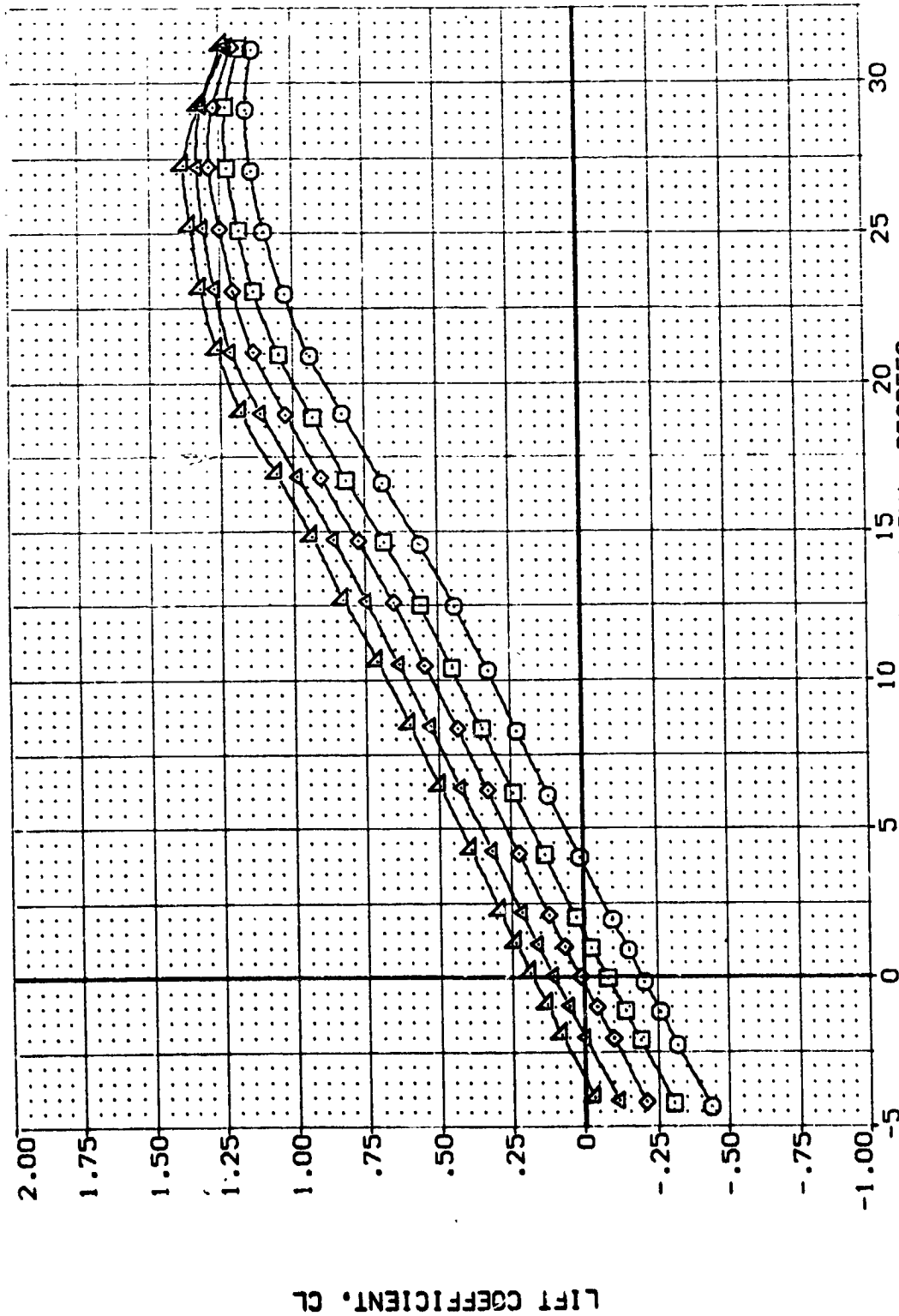


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	S-DBRK	BOFLAP	REFERENCE INFORMATION
(B02005)	0A62B B26C9G1 SMTF8 V116E28VBR5X9	-5.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02001)	0A62B B26C9G1 SMTF8 V116E28VBR5X9	.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(B02002)	0A62B B26C9G1 SMTF8 V116E28VBR5X9	5.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(B02003)	0A62B B26C9G1 SMTF8 V116E28VBR5X9	10.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(B02004)	0A62B B26C9G1 SMTF8 V116E28VBR5X9	15.000	.285	25.000	-12.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

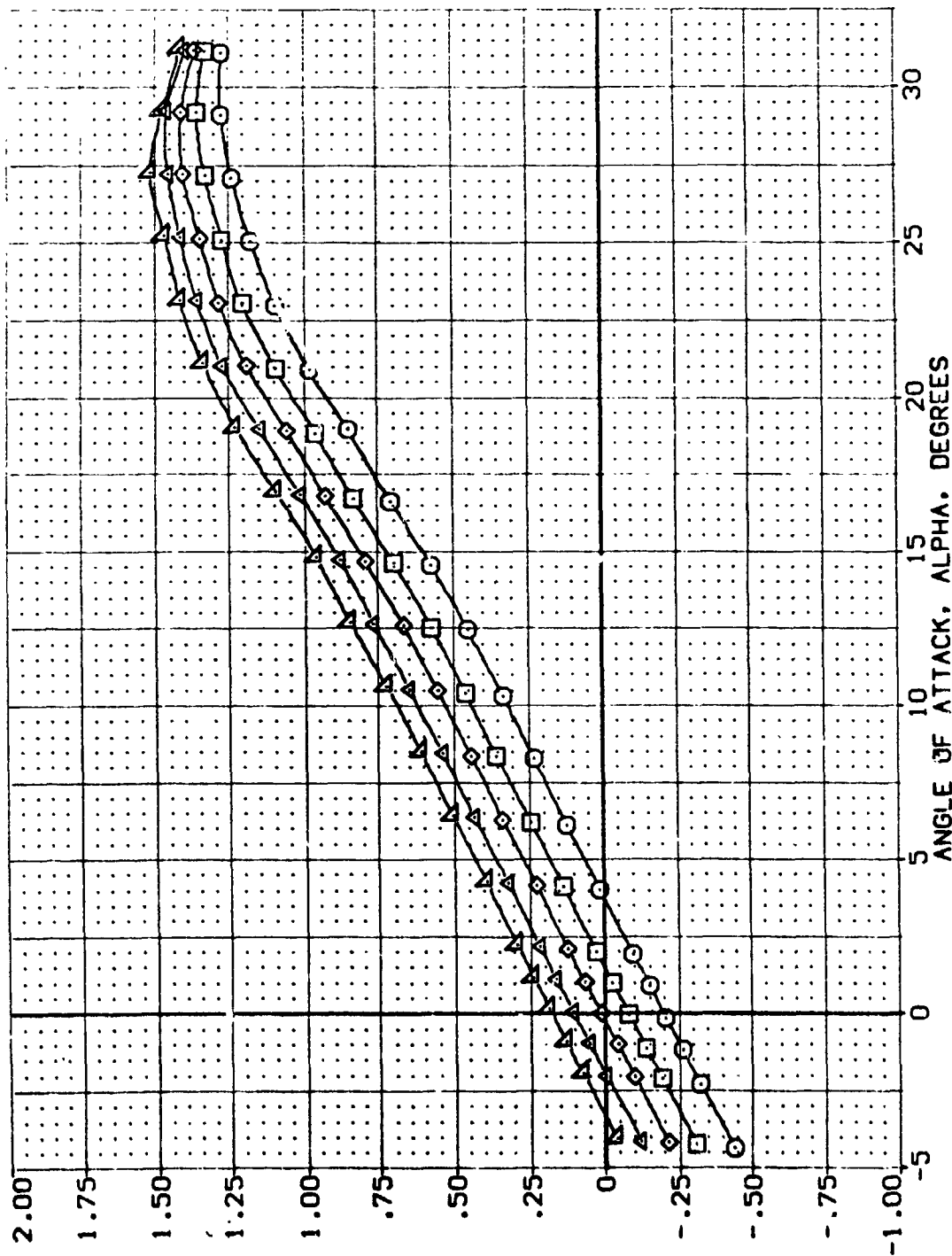


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(802005)	0A628 B26C9G15M7F8
(802001)	0A628 B26C9G15M7F8
(802002)	0A628 B26C9G15M7F8
(802003)	0A628 B26C9G15M7F8
(802004)	0A628 B26C9G15M7F8

ELEVON	H/BW	SPORRK	BOLAP	REFERENCE INFORMATION
-5.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
5.000	.285	25.000	-12.000	LREF 19.2298 INCHES
10.000	.285	25.000	-12.000	BREF 37.9359 INCHES
15.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
				ZMRP .0000 INCHES
				SCALE 15.1875 INCHES
				SCALE .0405

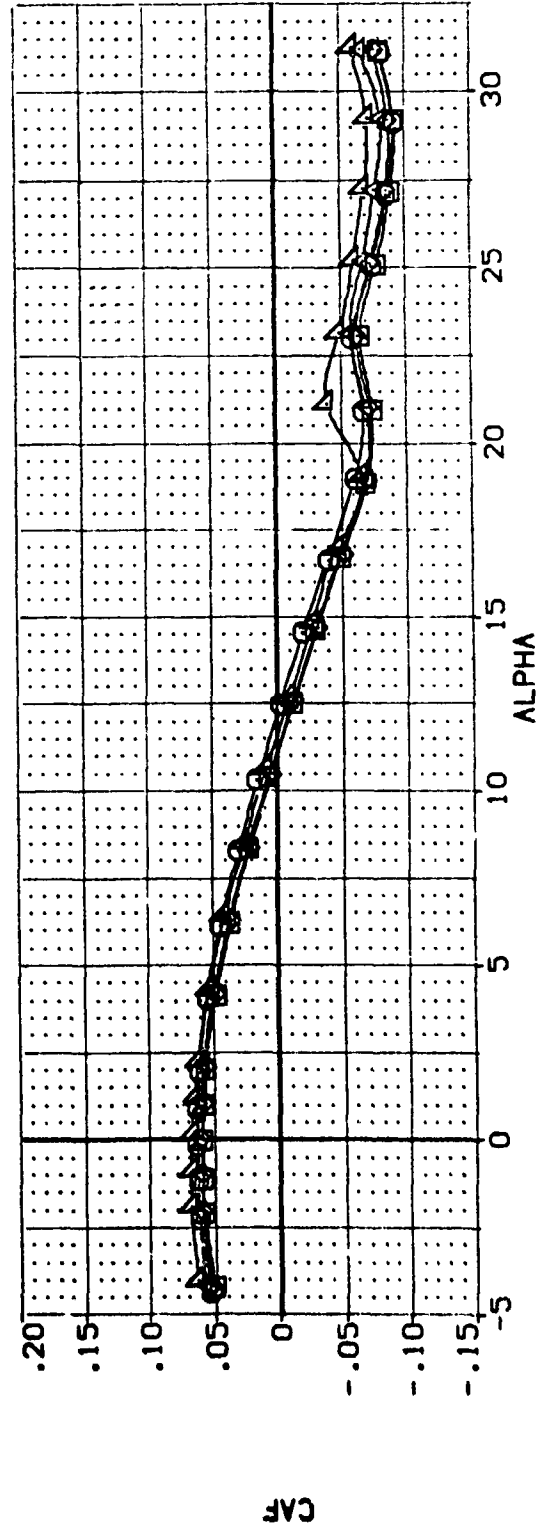
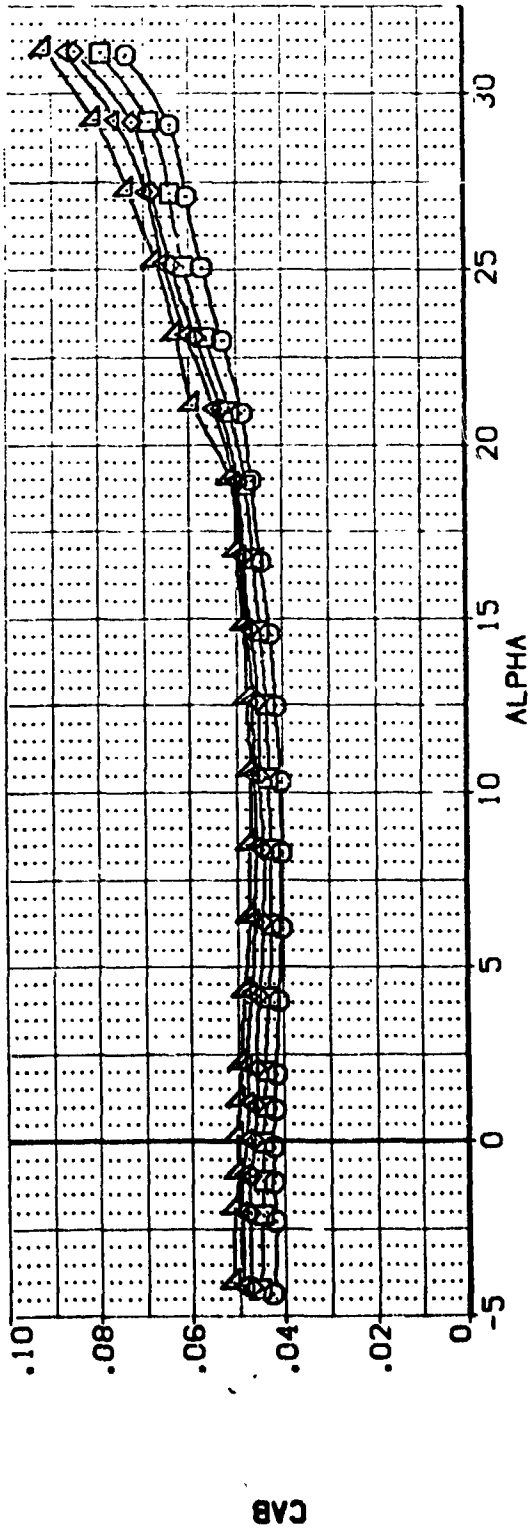


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORRY	BOFLAP	REFERENCE INFORMATION
(802005)	0A628 B26C9G1547F8 V116E28V8R5X9	-5.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(802001)	0A628 B26C9G1547F8 V116E28V8R5X9	0.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(802002)	0A628 B26C9G1547F8 V116E28V8R5X9	5.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(802003)	0A628 B26C9G1547F8 V116E28V8R5X9	10.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(802004)	0A628 B26C9G1547F8 V116E28V8R5X9	15.000	.285	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

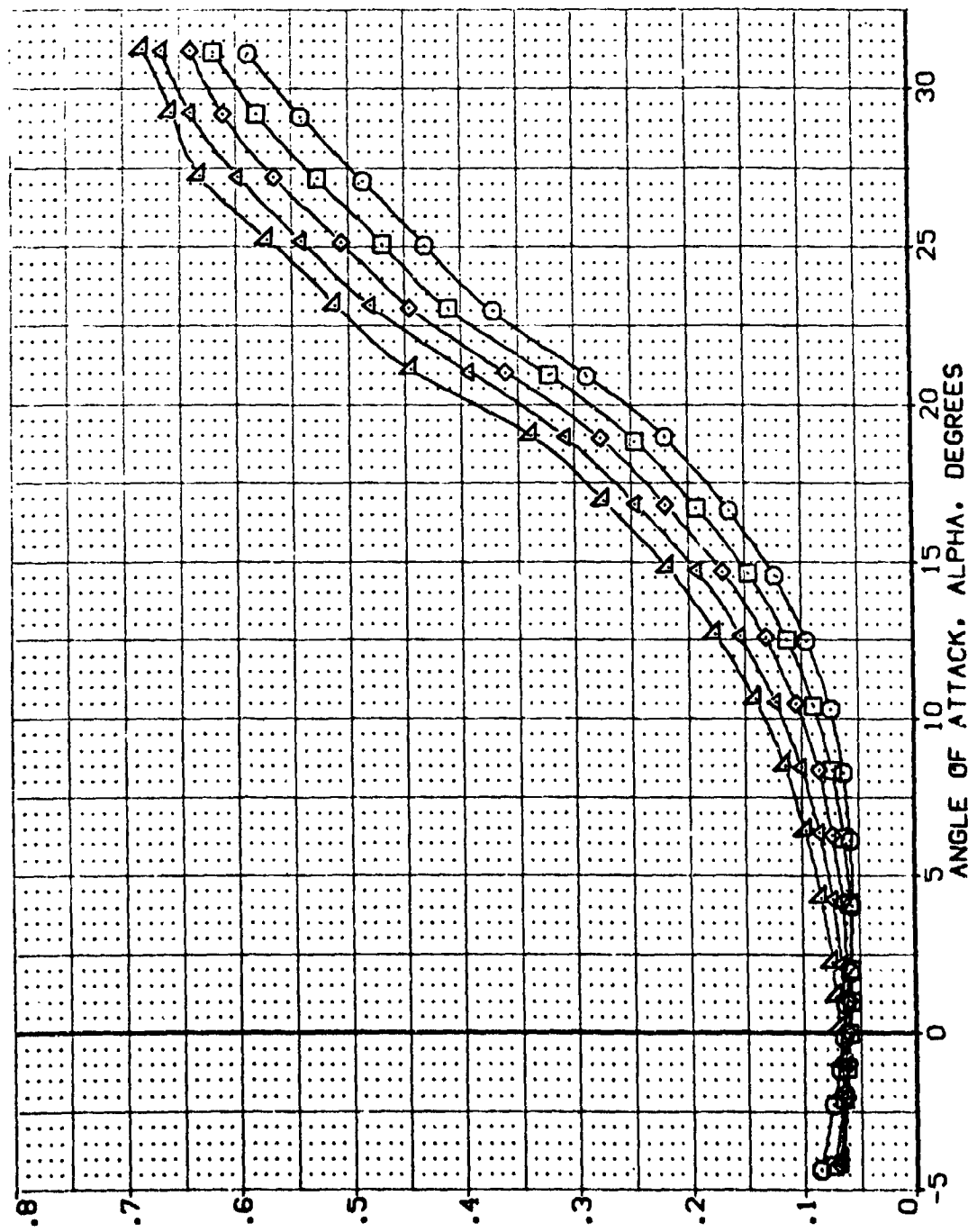
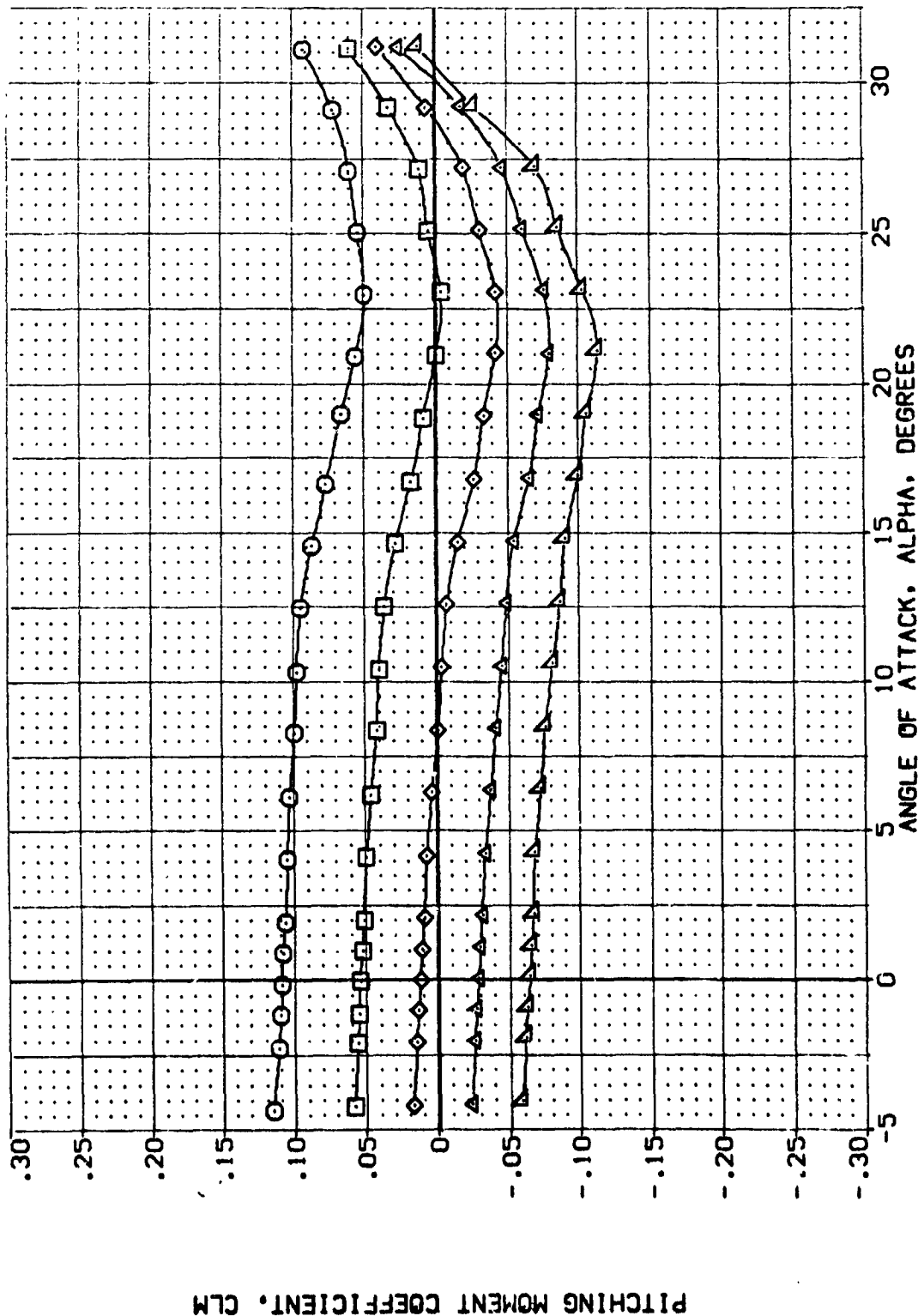


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02005)	0A628 B26C9G1 5H7F8 V116E28V8R5X9	-5.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02001)	0A628 B26C9G1 5H7F8 V116E28V8R5X9	.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(B02002)	0A628 B26C9G1 5H7F8 V116E28V8R5X9	5.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(B02003)	0A628 B26C9G1 5H7F8 V116E28V8R5X9	10.000	.285	25.000	-12.000	YMRP 43.5974 INCHES
(B02004)	0A628 B26C9G1 5H7F8 V116E28V8R5X9	15.000	.285	25.000	-12.000	ZMRP 15.0000 INCHES
						SCALE .0405



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(B02005)	□	04628	B26C9G1S47F8	V116E28V8R5X9
(B02001)	◇	04628	B26C9G1S47F8	V116E28V8R5X9
(B02002)	△	04628	B26C9G1S47F8	V116E28V8R5X9
(B02003)	○	04628	B26C9G1S47F8	V116E28V8R5X9
(B02004)	△	04628	B26C9G1S47F8	V116E28V8R5X9

ELEVON H/BW SPDBRK BOFLAP REFERENCE INFORMATION

-5.000	.285	25.000	-12.000	SREF	4.4119	50. FT
5.000	.285	25.000	-12.000	LREF	19.2299	INCHES
10.000	.285	25.000	-12.000	YMRP	43.5974	INCHES
15.000	.285	25.000	-12.000	ZMRP	.0000	INCHES
				SCALE	15.1875	INCHES
					.0405	SCALE

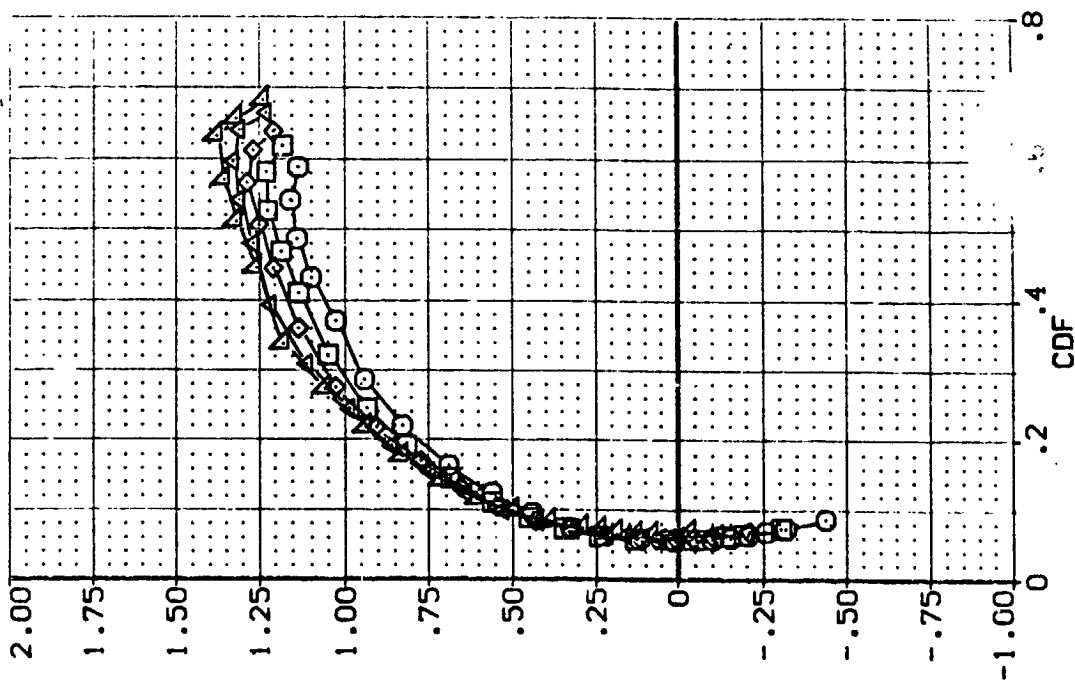
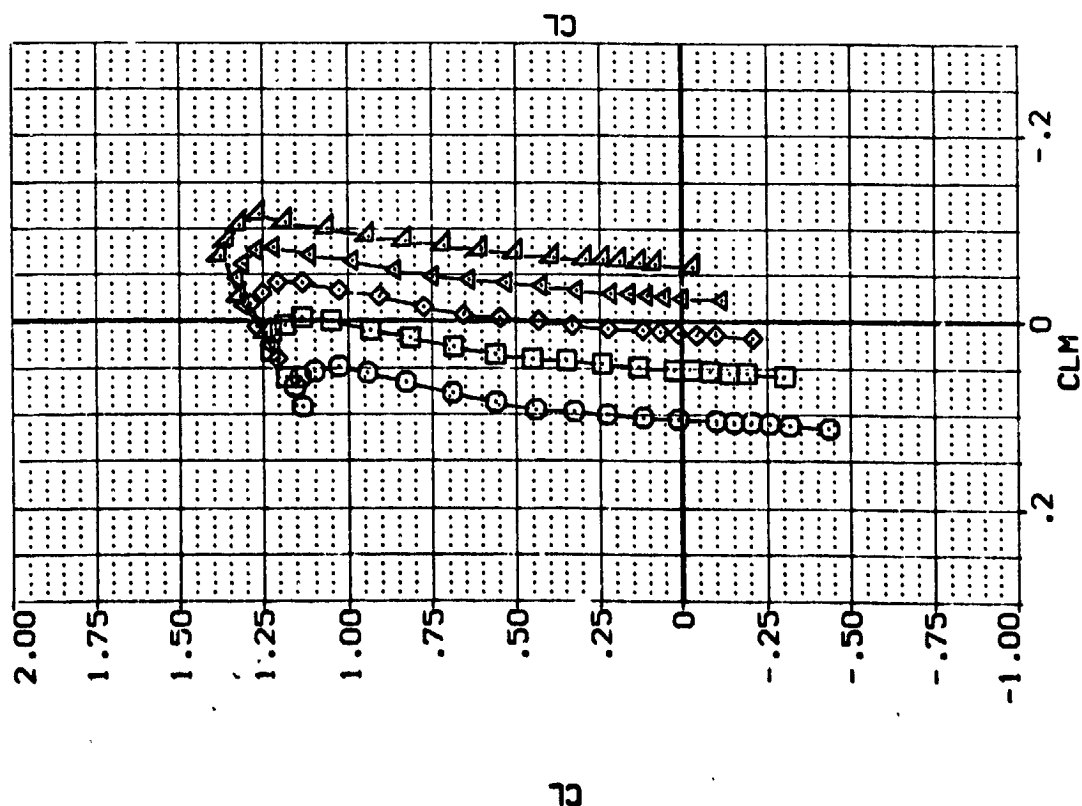


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(BDZ005)	0A628 B26C9G1S477 8	-5.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(BDZ001)	0A628 B26C9G1S477 8	.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(BDZ002)	0A628 B26C9G1S477 8	5.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(BDZ003)	0A628 B26C9G1S477 8	10.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(BDZ004)	0A628 B26C9G1S477 8	15.000	.285	25.000	-12.000	YMRP 15.0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

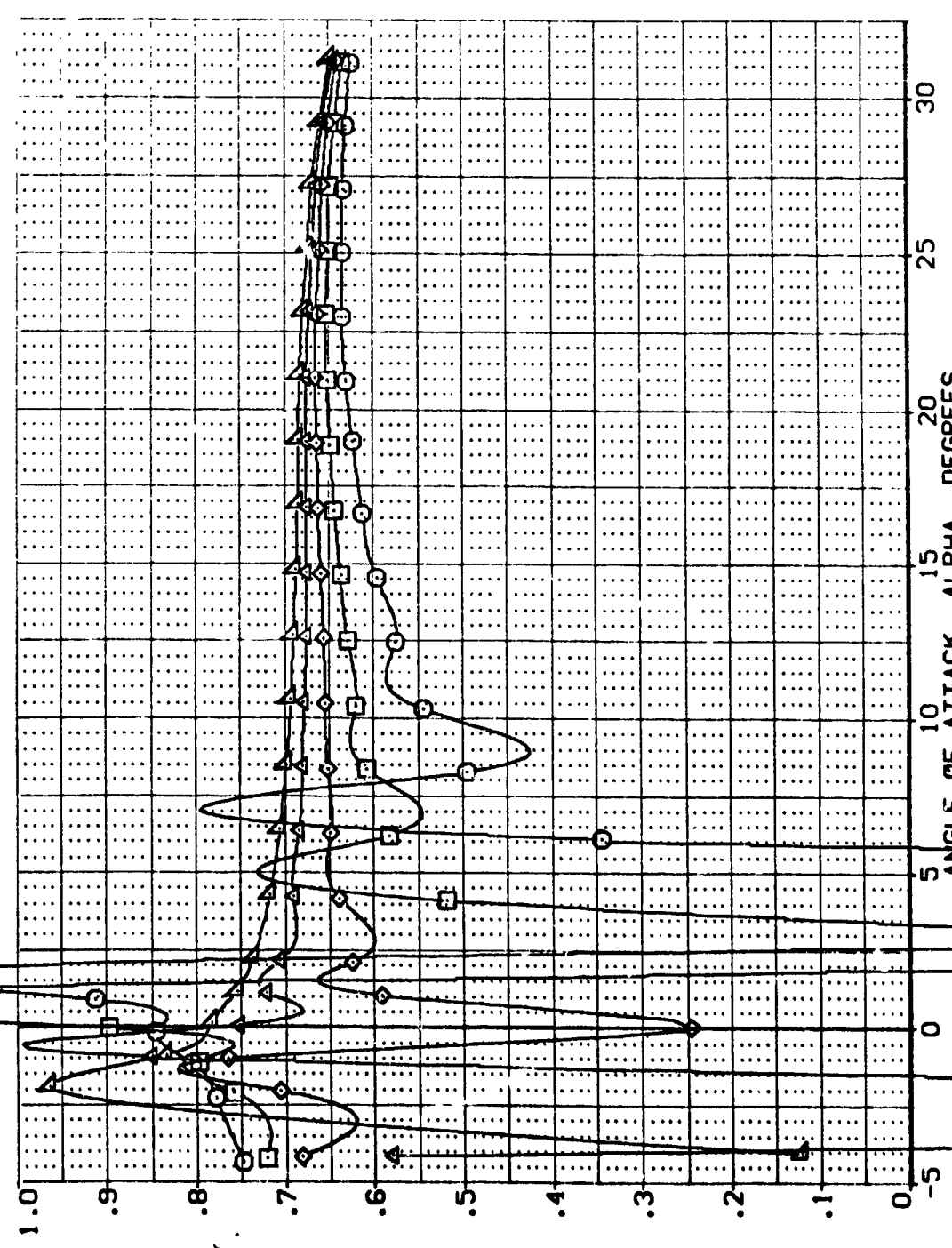


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(802005)	0A628 B26C9G15H7F8 V116E28V8K5X9	-5.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(802001)	0A628 B26C9G15H7F8 V116E28V8K5X9	.000	.285	25.000	-12.000	LREF 19.7299 INCHES
(802002)	0A628 B26C9G15H7F8 V116E28V8K5X9	5.000	.285	25.000	-12.000	BREF 37.3359 INCHES
(802003)	0A628 B26C9G15H7F8 V116E28V8K5X9	10.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(802004)	0A628 B26C9G15H7F8 V116E28V8K5X9	15.000	.285	25.000	-12.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

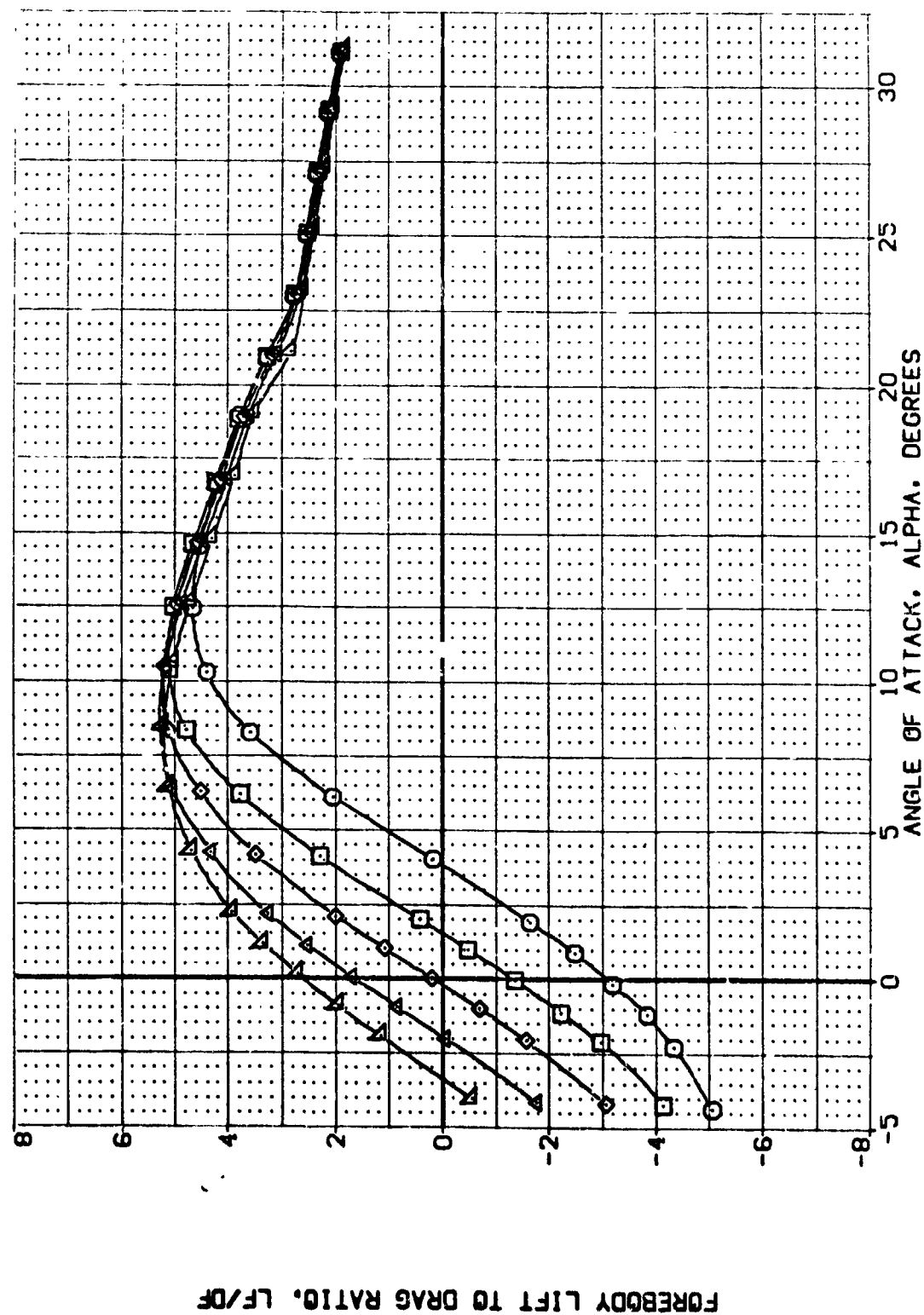


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BOFLAP	REFERENCE INFORMATION
(802010)	0A528 B26C5G1S47F8 V116E28V8R5X9	-40.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(802009)	0A528 B26C5G1S47F8 V116E28V8R5X9	-30.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(802008)	0A528 B26C5G1S47F8 V116E28V8R5X9	-20.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(802007)	0A528 B26C5G1S47F8 V116E28V8R5X9	-15.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(802006)	0A528 B26C5G1S47F8 V116E28V8R5X9	-10.000	.285	25.000	-12.000	YMRP .0000 INCHES
(802001)	0A528 B26C5G1S47F8 V116E28V8R5X9	.000	.285	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

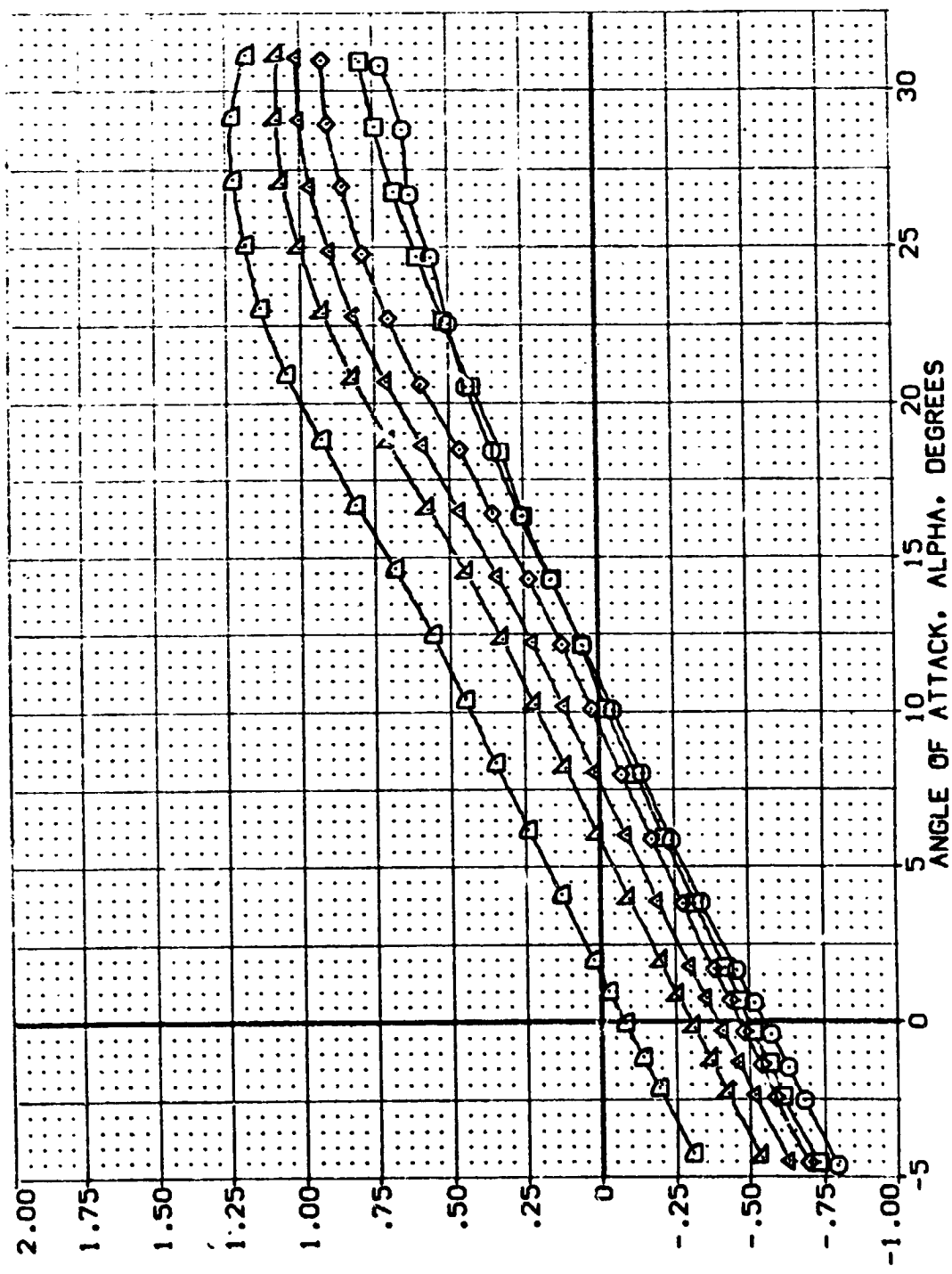


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02010)	QAS28 B26C9G1SMTF8 V116E28VBR5X9	-40.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02009)	QAS28 B26C9G1SMTF8 V116E28VBR5X9	-30.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(B02008)	QAS28 B26C9G1SMTF8 V116E28VBR5X9	-20.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(B02007)	QAS28 B26C9G1SMTF8 V116E28VBR5X9	-15.000	.285	25.000	-12.000	YMRP 43.5974 INCHES
(B02006)	QAS28 B26C9G1SMTF8 V116E28VBR5X9	-10.000	.285	25.000	-12.000	ZMRP 15.0000 INCHES
(B02001)	QAS28 B26C9G1SMTF8 V116E28VBR5X9	.000	.285	25.000	-12.000	SCALE .0405

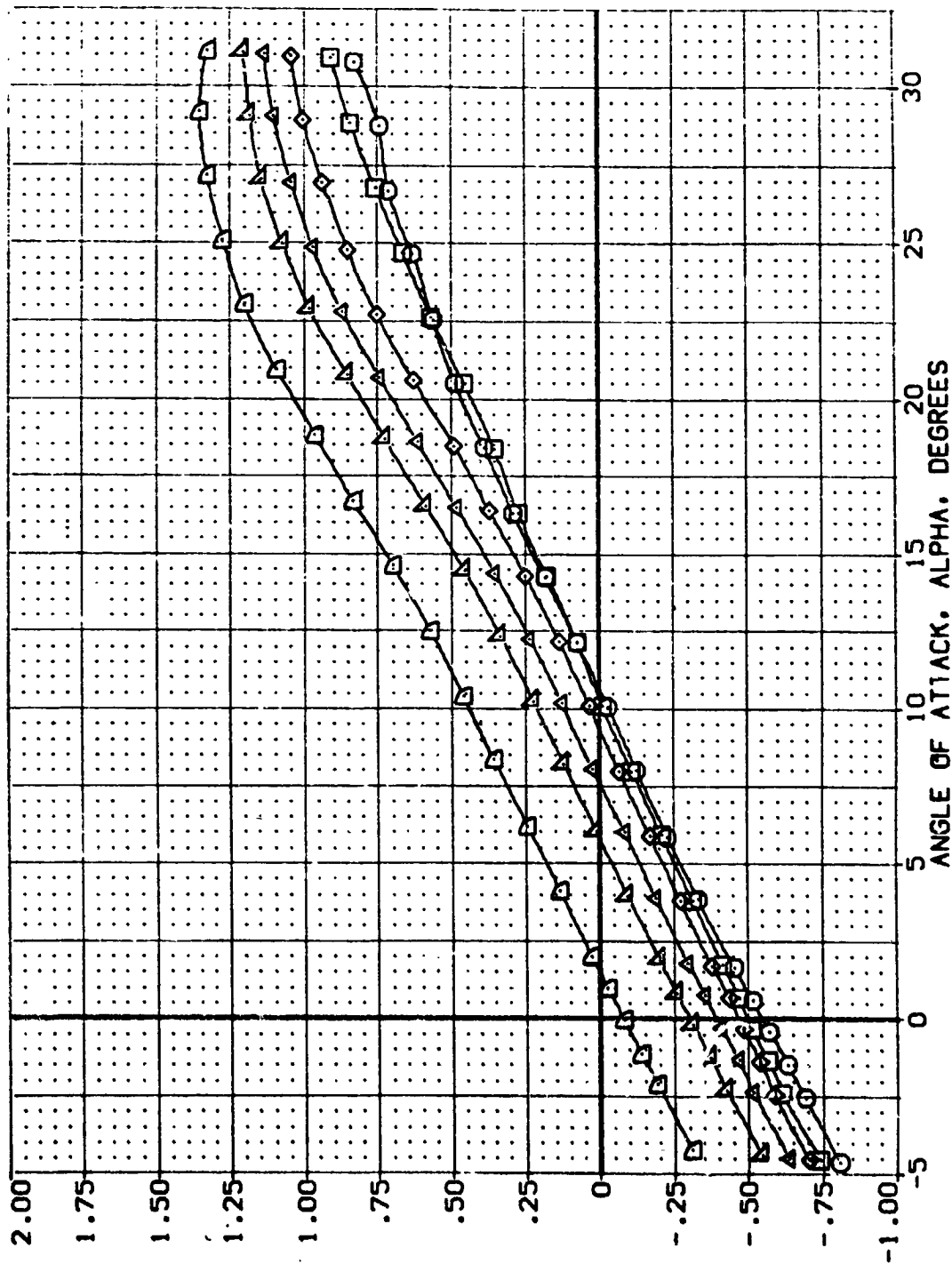


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(BD2010)	QAG2B	B26C9G1	SH7F8	V116E28VBR5X9
(BD2009)	QAG2B	B26C9G1	SH7F8	V116E28VBR5X9
(BD2008)	QAG2B	B26C9G1	SH7F8	V116E28VBR5X9
(BD2007)	QAG2B	B26C9G1	SH7F8	V116E28VBR5X9
(BD2006)	QAG2B	B26C9G1	SH7F8	V116E28VBR5X9
(BD2001)	QAG2B	B26C9G1	SH7F8	V116E28VBR5X9

ELEVON H/BW SPOBRK BOFLAP REFERENCE INFORMATION

-40.000	.285	25.000	-12.000	SREF	4.4119	50. FT.
-30.000	.285	25.000	-12.000	LREF	19.2299	INCHES
-20.000	.285	25.000	-12.000	BREF	37.9359	INCHES
-15.000	.285	25.000	-12.000	XMRP	43.5974	INCHES
-10.000	.285	25.000	-12.000	YMRP	.0000	INCHES
.000	.285	25.000	-12.000	ZMRP	15.1875	INCHES
				SCALE	.0405	SCALE

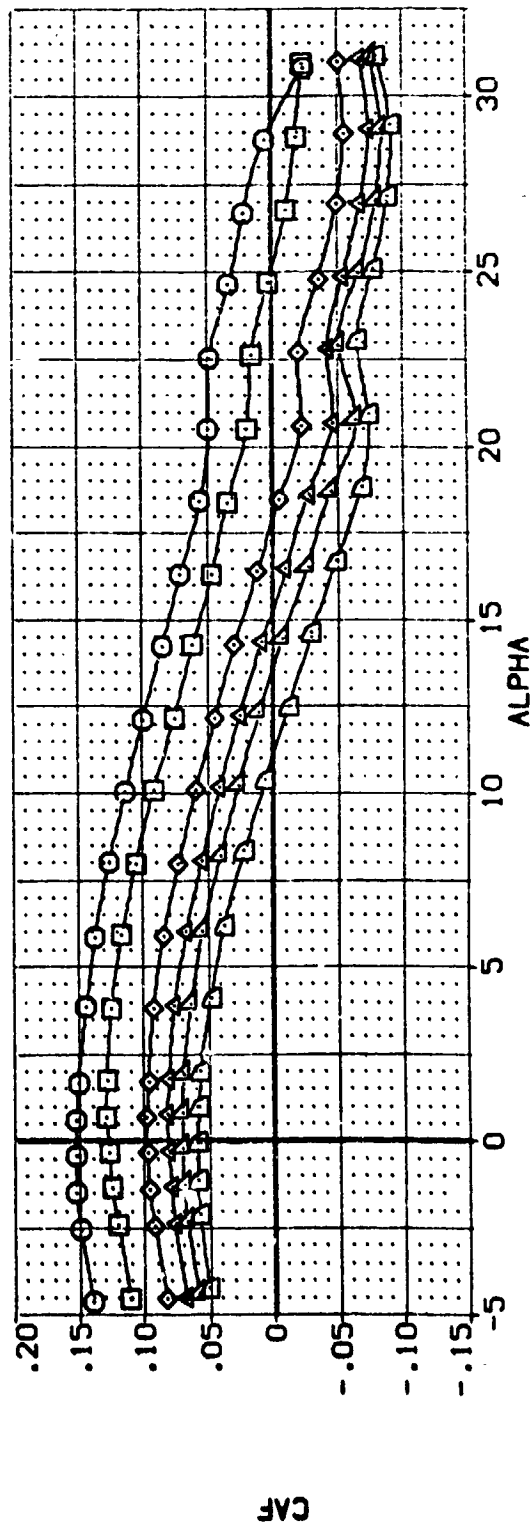
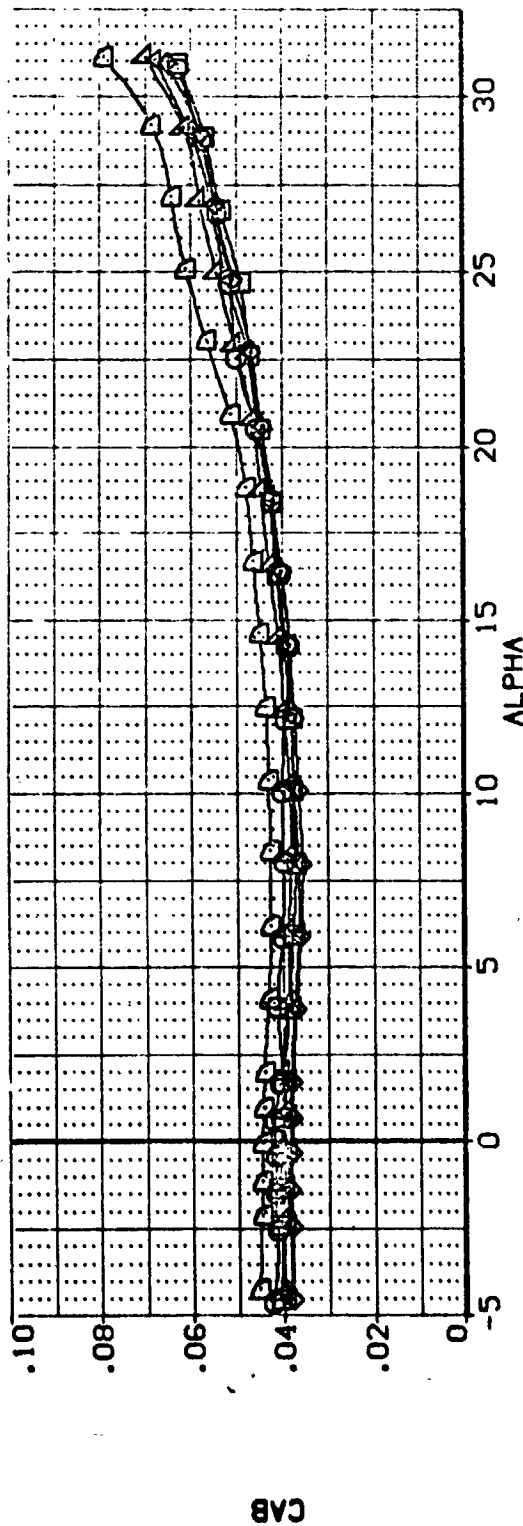


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BD/LAP	REFERENCE INFORMATION
(BD2010)	0A628 B26C9G1SMTF8	-40.000	.285	25.000	-12.000	SREF 4.4119 SO.FT
(BD2009)	0A628 B26C9G1SMTF8	-30.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(BD2008)	0A628 B26C9G1SMTF8	-20.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(BD2007)	0A628 B26C9G1SMTF8	-15.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(BD2006)	0A628 B26C9G1SMTF8	-10.000	.285	25.000	-12.000	YMRP .0000 INCHES
(BD2001)	0A628 B26C9G1SMTF8	-10.000	.285	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

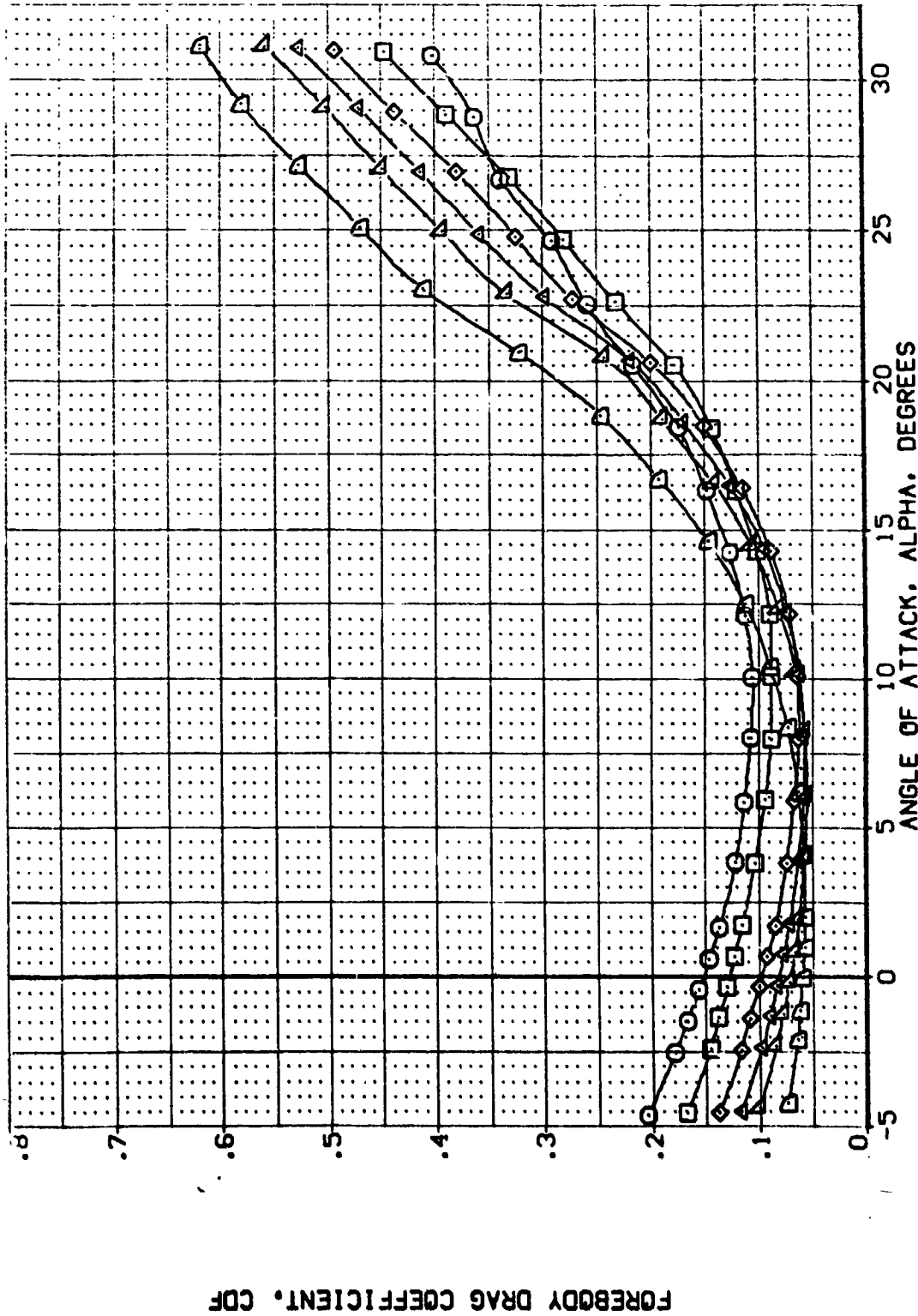


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20



PITCHING MOMENT COEFFICIENT, CLM

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BOFLAP	REFERENCE INFORMATION
(802010)	0A628 B26C9G15H7F8 V116E28V8R5X9	-40.000	.285	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(802009)	0A628 B26C9G15H7F8 V116E28V8R5X9	-30.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(802008)	0A628 B26C9G15H7F8 V116E28V8R5X9	-20.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(802007)	0A628 B26C9G15H7F8 V116E28V8R5X9	-15.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(802006)	0A628 B26C9G15H7F8 V116E28V8R5X9	-10.000	.285	25.000	-12.000	YMRP 15.0000 INCHES
(802001)	0A628 B26C9G15H7F8 V116E28V8R5X9	-10.000	.285	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

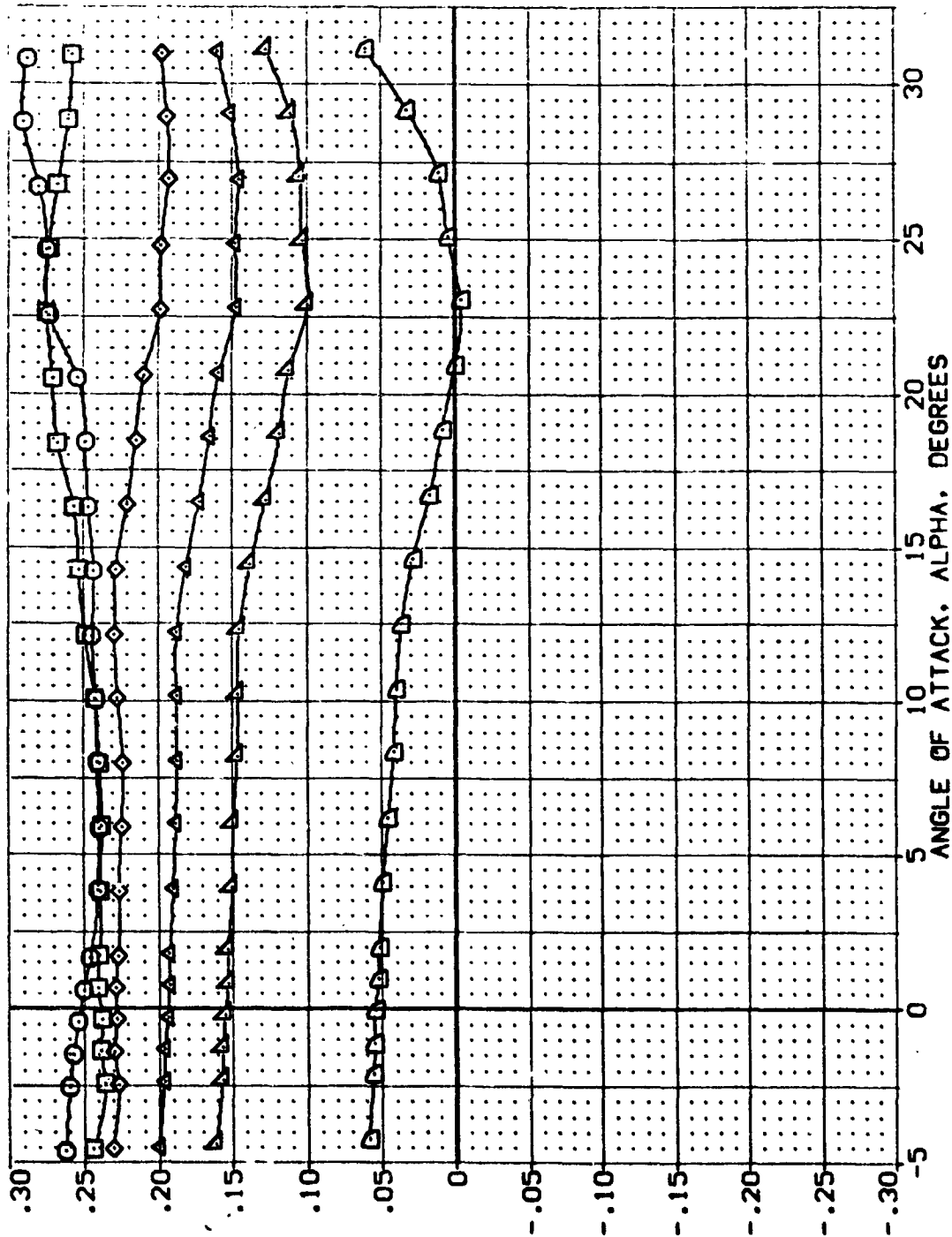


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802010)	0A628 B26C5G1547F8 V116E28V8R5X9	-40.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(802008)	0A628 B26C5G1547F8 V116E28V8R5X9	-30.000	.285	25.000	-12.000	LREF 19.2299 INCHES
(802008)	0A628 B26C5G1547F8 V116E28V8R5X9	-20.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(802007)	0A628 B26C5G1547F8 V116E28V8R5X9	-15.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(802006)	0A628 B26C5G1547F8 V116E28V8R5X9	-10.000	.285	25.000	-12.000	YMRP 0.000 INCHES
(802001)	0A628 B26C5G1547F8 V116E28V8R5X9	.000	.285	25.000	-12.000	ZMRP 15.1375 INCHES
						SCALE .0475

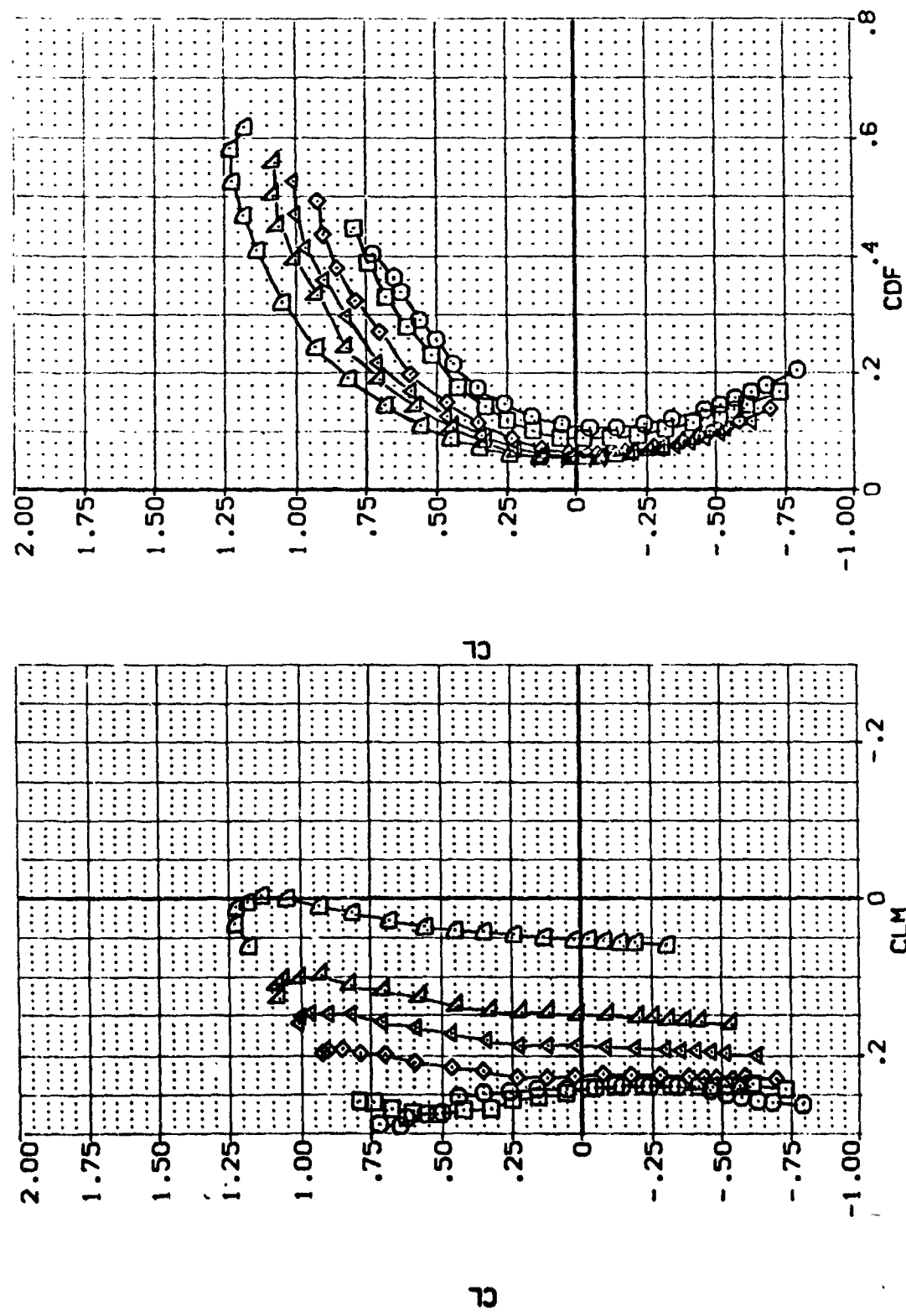


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
-40.000	.285	25.000	-12.000	SREF 4.4119 SO.FT.
-30.000	.285	25.000	-12.000	LREF 19.2299 INCHES
-20.000	.285	25.000	-12.000	BREF 37.9359 INCHES
-15.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
-10.000	.285	25.000	-12.000	YMRP .0000 INCHES
.000	.285	25.000	-12.000	ZMRP 15.1875 INCHES
				SCALE .0405

DATA SET SYMBL	CONFIGURATION DESCRIPTION
(E02010)	0A628 B26C9G1S4778
(E02009)	0A628 B26C9G1S4778
(E02008)	0A628 B26C9G1S4778
(E02007)	0A628 B26C9G1S4778
(E02006)	0A628 B26C9G1S4778
(E02005)	0A628 B26C9G1S4778
(E02004)	0A628 B26C9G1S4778
(E02003)	0A628 B26C9G1S4778
(E02002)	0A628 B26C9G1S4778
(E02001)	0A628 B26C9G1S4778

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

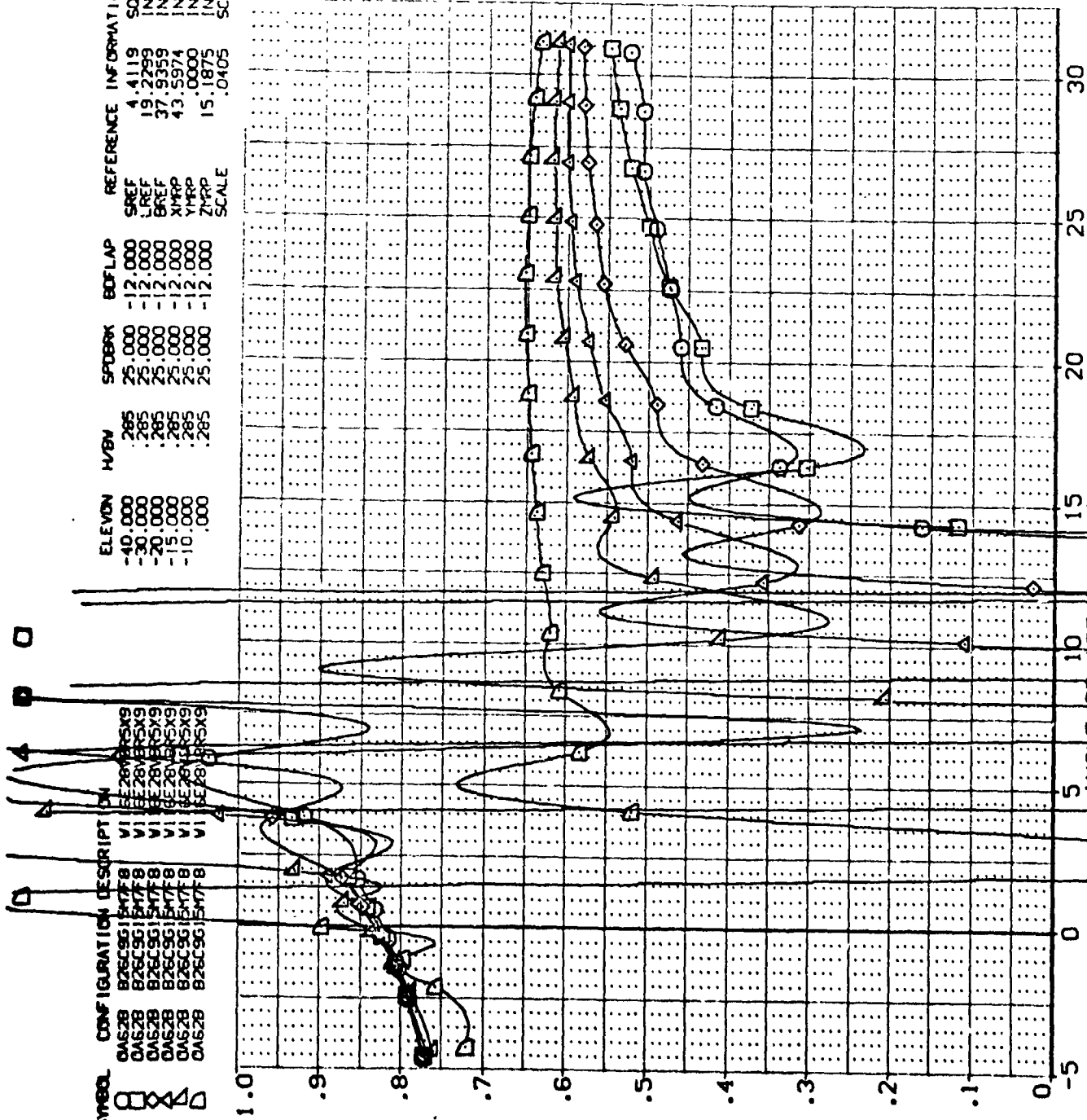


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(B02001)	0A628 B26C9G1S7F8 V116E28V8K5X9	-40.000	.285	25.000	-12.000	SREF 4.4119 SO.FT.
(B02002)	0A628 B26C9G1S7F8 V116E28V8K5X9	-30.000	.285	25.000	-12.000	LREF 19.2298 INCHES
(B02003)	0A628 B26C9G1S7F8 V116E28V8K5X9	-20.000	.285	25.000	-12.000	BREF 37.9359 INCHES
(B02004)	0A628 B26C9G1S7F8 V116E28V8K5X9	-15.000	.285	25.000	-12.000	XMRP 43.5974 INCHES
(B02005)	0A628 B26C9G1S7F8 V116E28V8K5X9	-10.000	.285	25.000	-12.000	ZMRP .0000 INCHES
(B02006)	0A628 B26C9G1S7F8 V116E28V8K5X9	-10.000	.285	25.000	-12.000	SCALE .0405

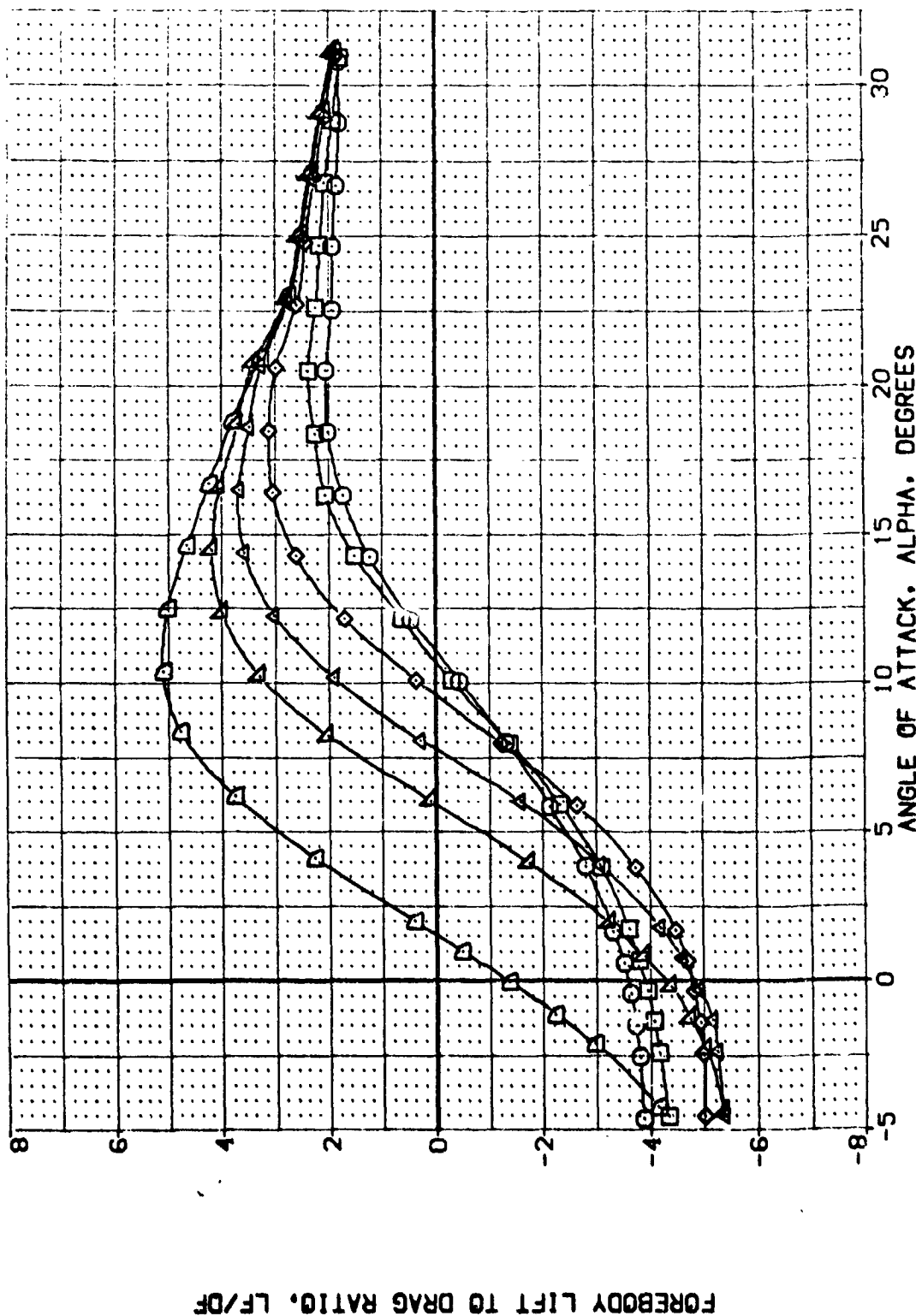


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(A)MACH = .20



0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ010)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE	REFERENCE INFORMATION	
			BOFLAP	BETA		DELTON	SREF
O	.000	.285	.000	.200	.000	1DZ009	4.4119
			.000	.000	1DZ010	1DZ007	19.2299
			.000	.000	1DZ008	1DZ005	37.9359
			.000	.000	1DZ006	1DZ002	43.5974
					1DZ001	1DZ004	15.0000
					1DZ003		15.1875
							15.0405

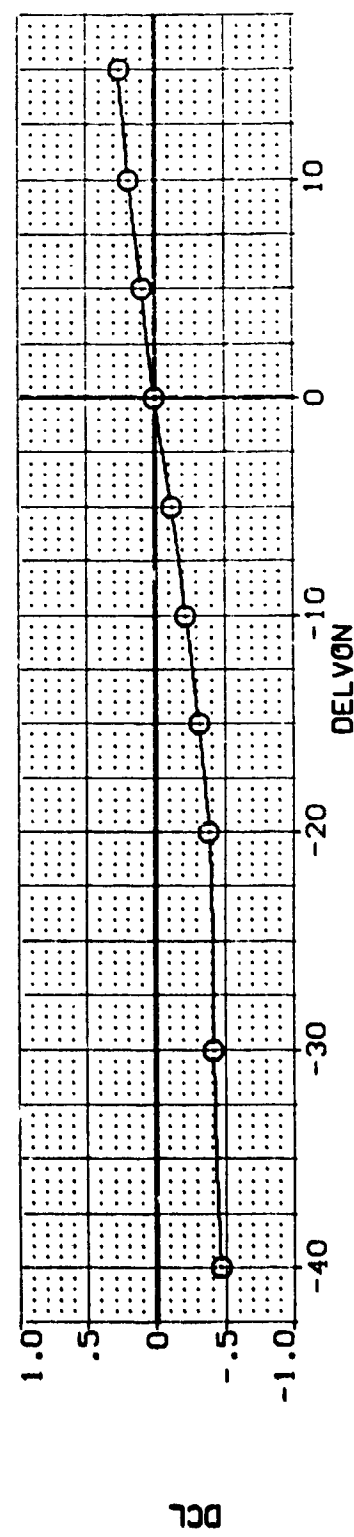
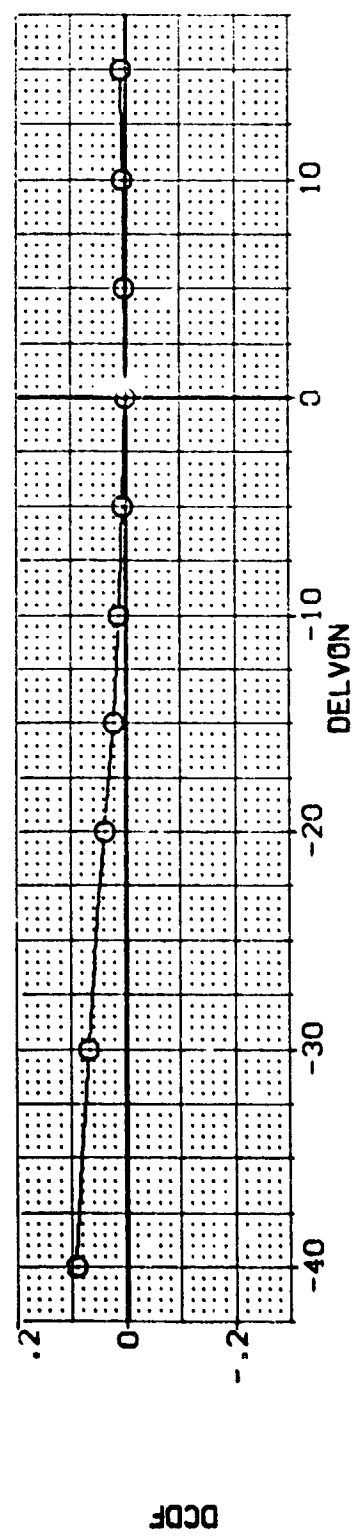
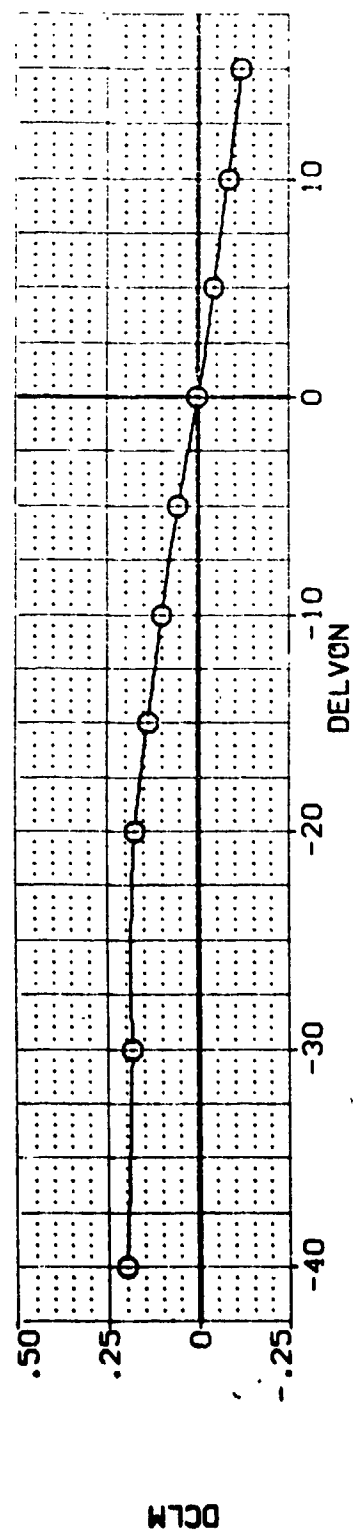


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285



(1DZ010)

0A628 B26C9G15M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	SREF	REFERENCE INFORMATION
0	5.000		BETA	.000	1DZ010	.000	-30.000	4.4119	SO.FT.
		BDFLAP	-12.000	.000	1DZ008	.000	-15.000	19.2293	INCHES
		RUDER	.000	25.000	1DZ006	.000	-5.000	37.9359	INCHES
		H/BW	.285		1DZ001	.000	5.000	43.5974	INCHES
					1DZ002	.000	15.000	15.1875	INCHES
					1DZ003	.000	15.000	.0405	SCALE

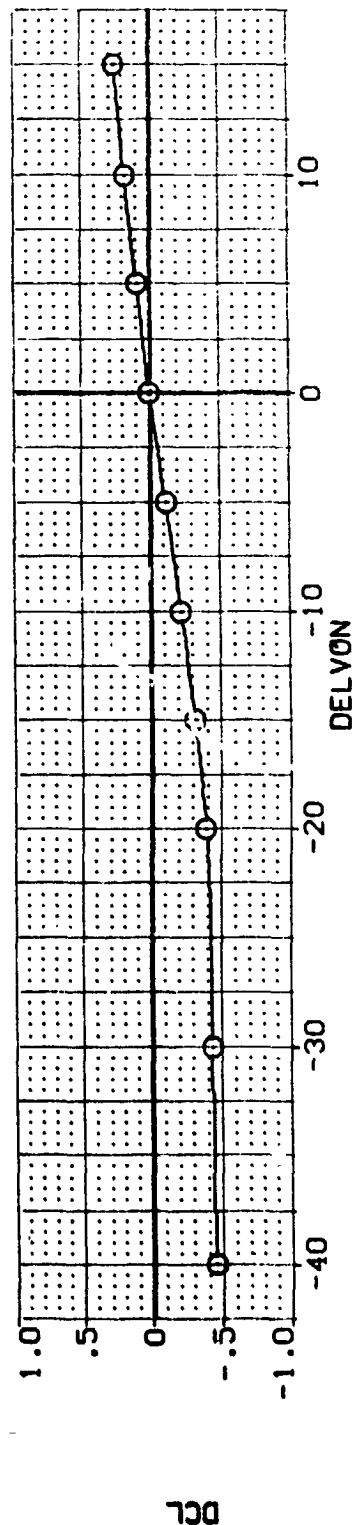
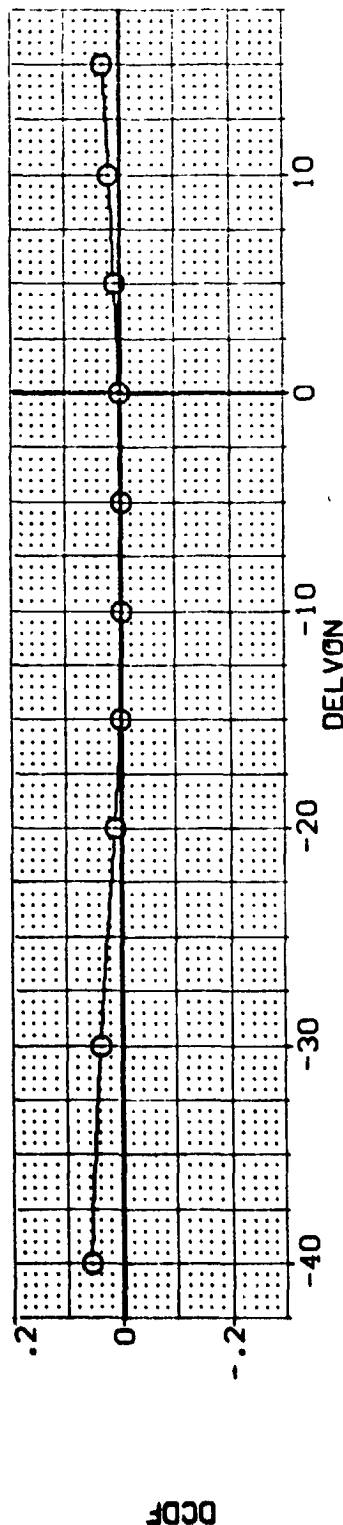
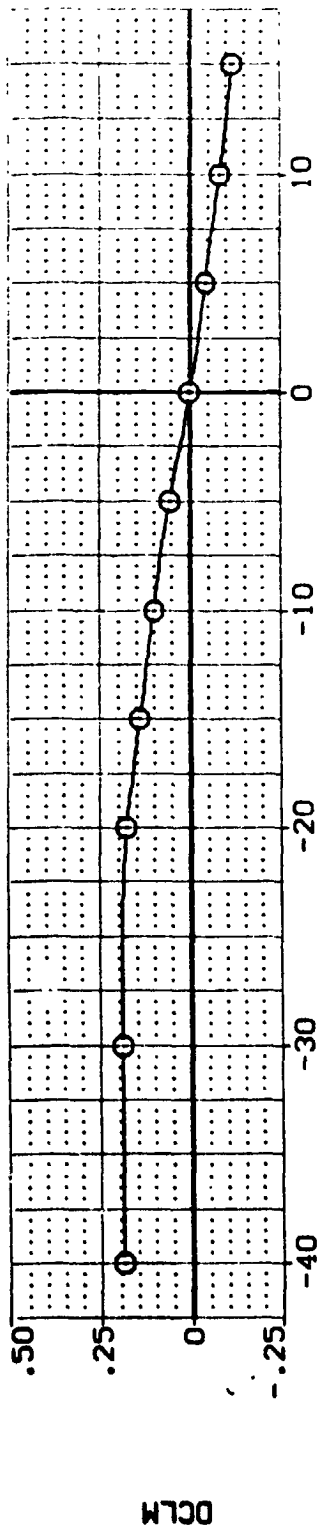


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285



GA

SYMBOL ALPHA MACH BOFLAP RUDDER W/BV



FIG. 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285



(010201)

QA628 B26C9G15M7F8 W116E28V8R5X9

GA628 B26C9G15M7F8

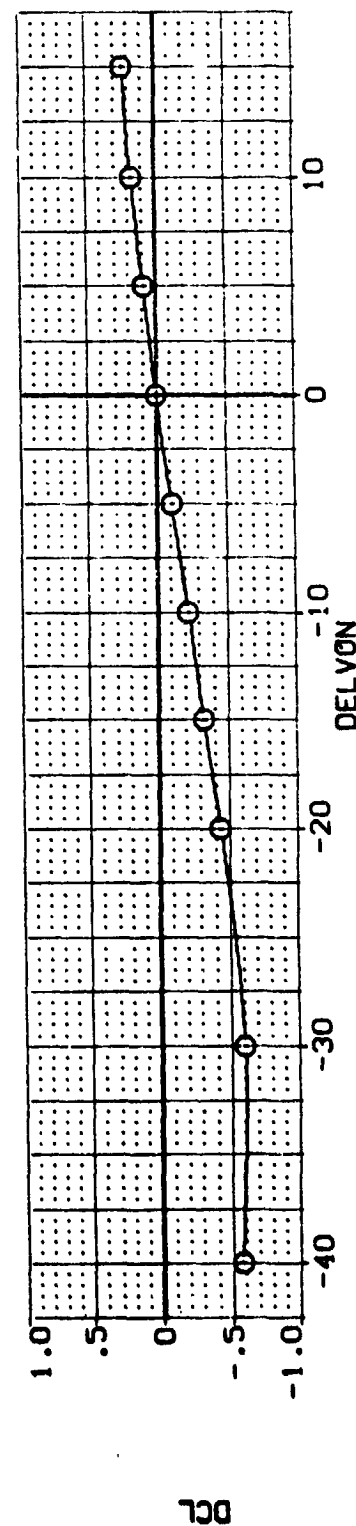
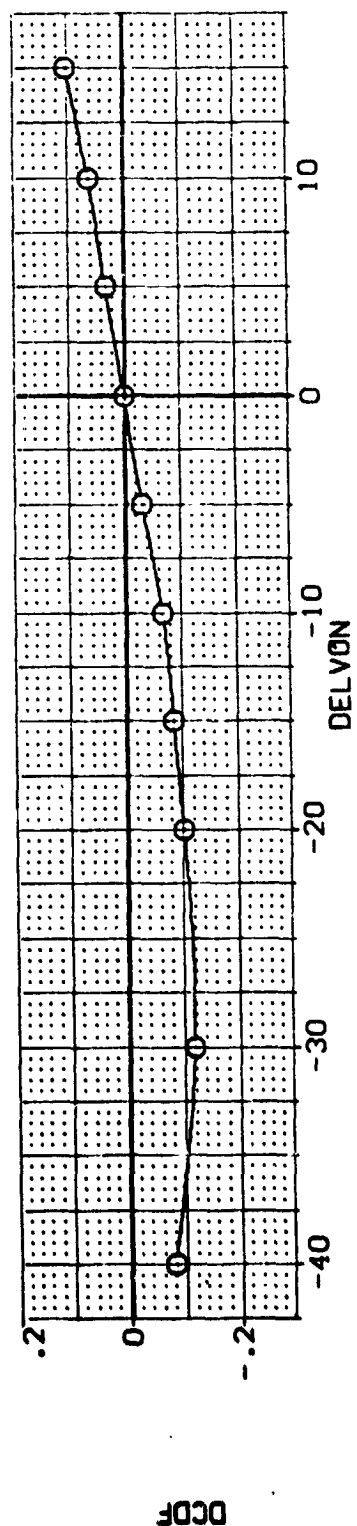
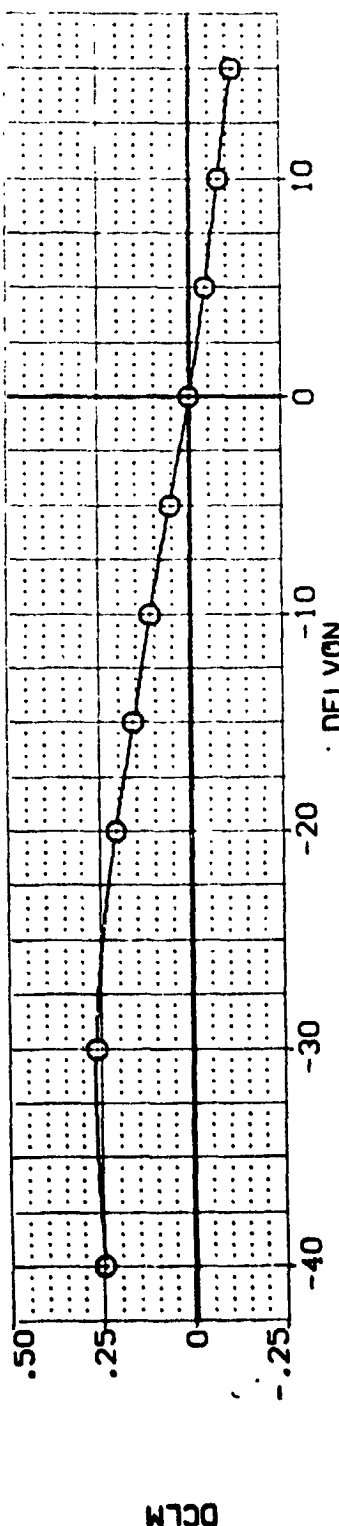
GA62B 82

**GAB**

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[illegible]

**FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285**

0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ010)

SYMBOL	ALPHA	MACH	BOFLAP	BLUDDER	H/BW	PARAMETRIC VALUES	DATA SOURCE	DATASET	DEL VON	DATASET	DEL VON	SREF	SC.FT.
O	25.000	.200	.000	.000	.285	BETA -12.000 A11LRN SPDRK SPOBRK	.000 IDZ010 IDZ008 IDZ006 IDZ001 IDZ003	.000 IDZ010 IDZ008 IDZ006 IDZ001 IDZ003	-40.000 -20.000 -10.000 10.000	IDZ009 IDZ007 IDZ005 IDZ002 IDZ004	-30.000 -15.000 -5.000 5.000 15.000	LREF BREF XMRP YMRP ZMRP	4.4119 19.2299 37.9359 43.5974 0.000 15.1875 SCALE

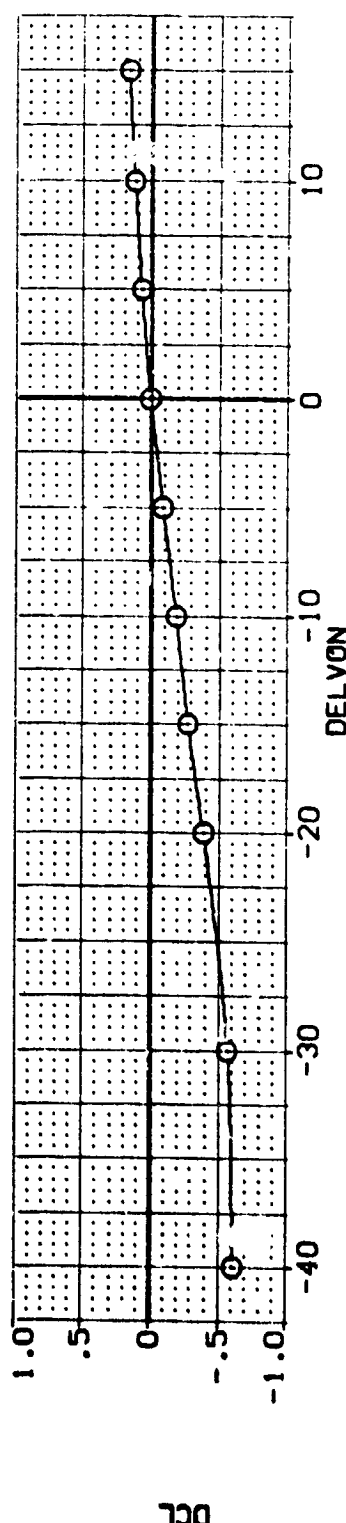
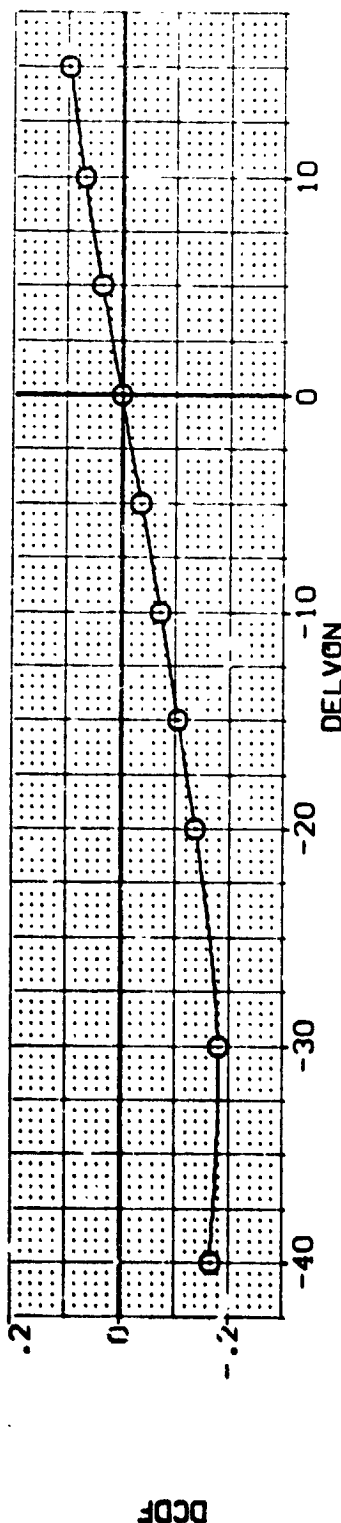
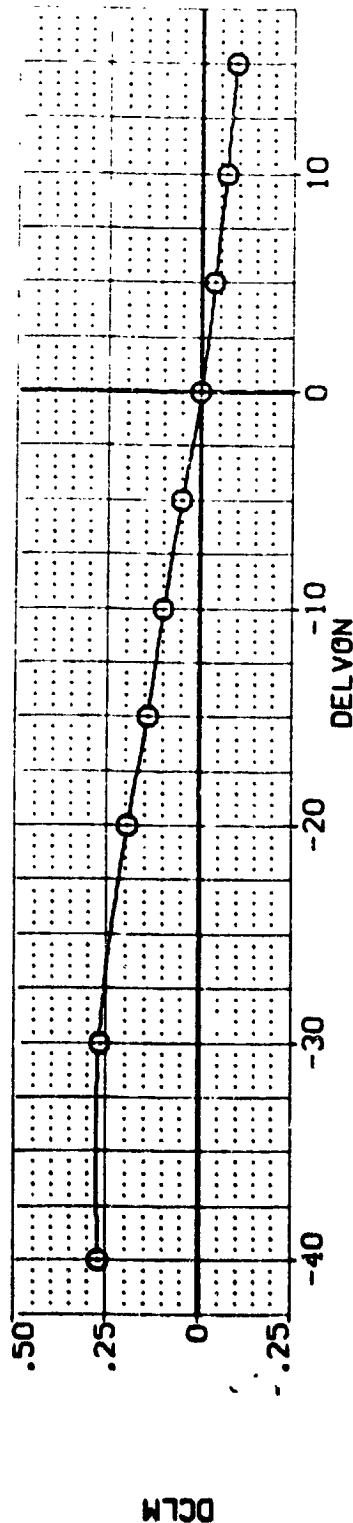


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

63

0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ010)

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	30.000	MACH	.200	BETA	.000	DATASET	DELTON	SREF	50. FT
SYMBOL	O	BOFLAP	-12.000	ATLROM	.000	1DZ010	-30.000	LREF	INCHES
		RUDDER	.000	SPOBRK	25.000	1DZ008	-15.000	BREF	INCHES
		H/BW	.285			1DZ006	-5.000	XRRP	INCHES
						1DZ001	10.000	YRRP	INCHES
						1DZ003	15.000	ZRRP	INCHES
								SCALE	SCALE

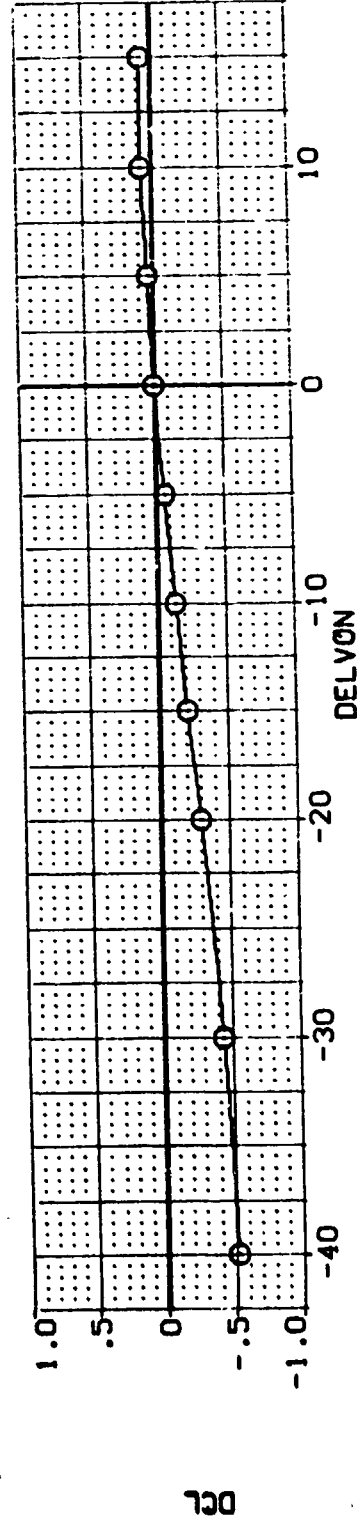
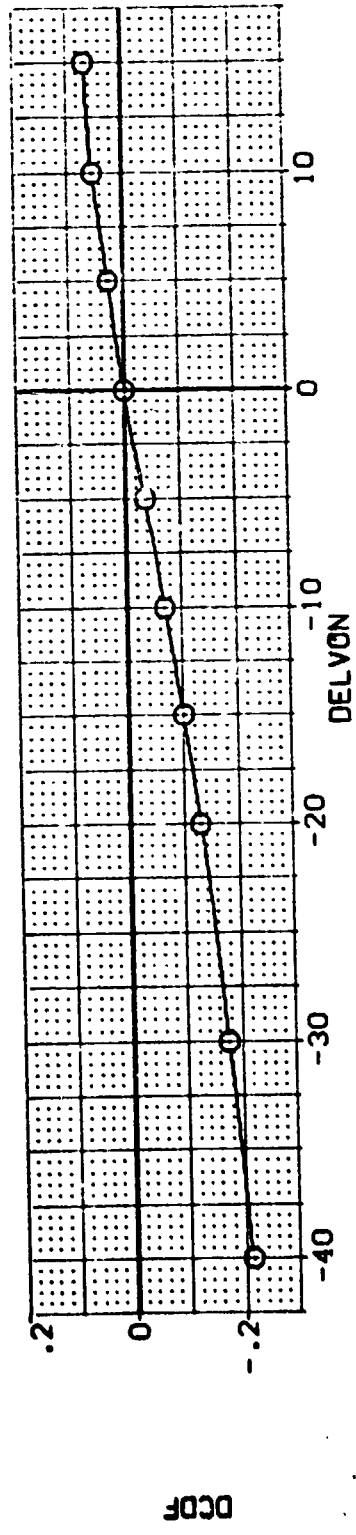
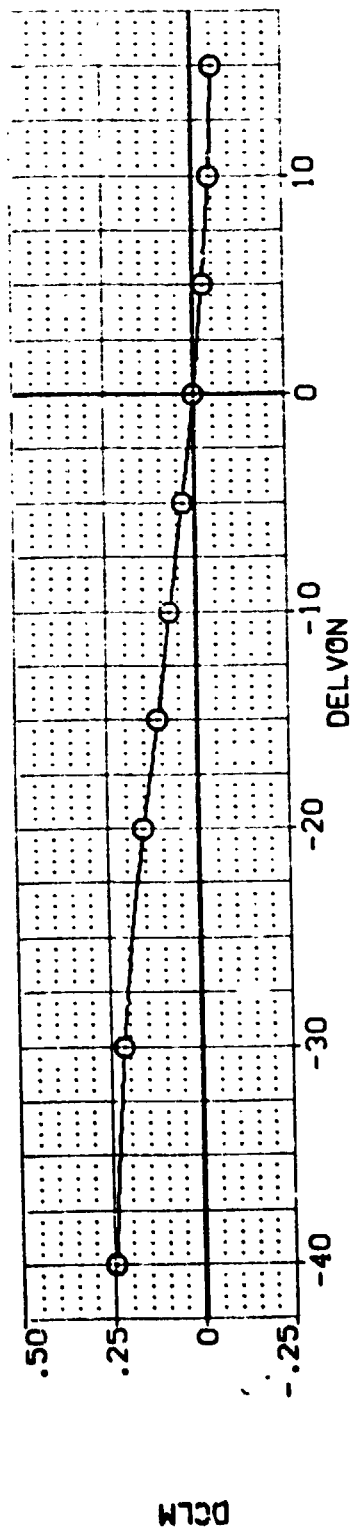


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285



0A62B B26C9G15M7F8 W116E28V8R5X9 (1DZ010)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	.000				
			BETA	DELTON	SREF
			.200	.000	4.4119
			ATLRN	DELTON	LREF
			-12.000	-40.000	19.2299
			SPOBRK	DELTON	BREF
			.000	-20.000	37.9359
			.285	-10.000	43.5974
				.000	YRRP
				.000	.0000
				10.000	ZRRP
				10.000	15.1875
					SCALE
					.0405

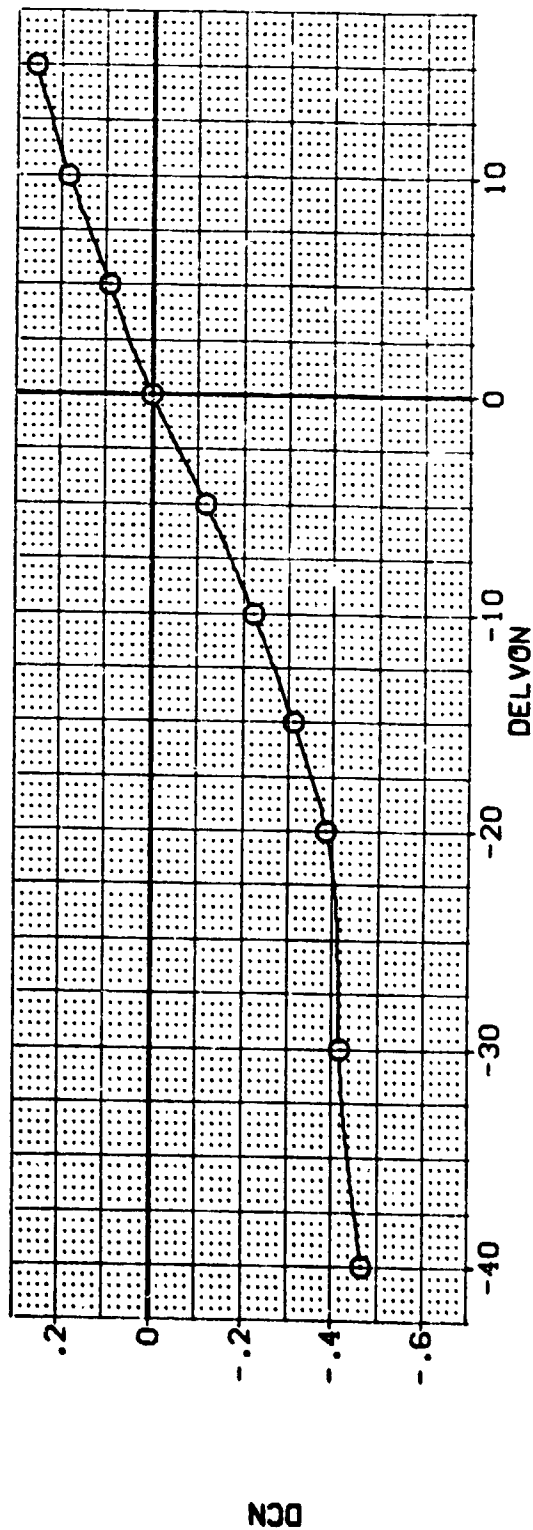
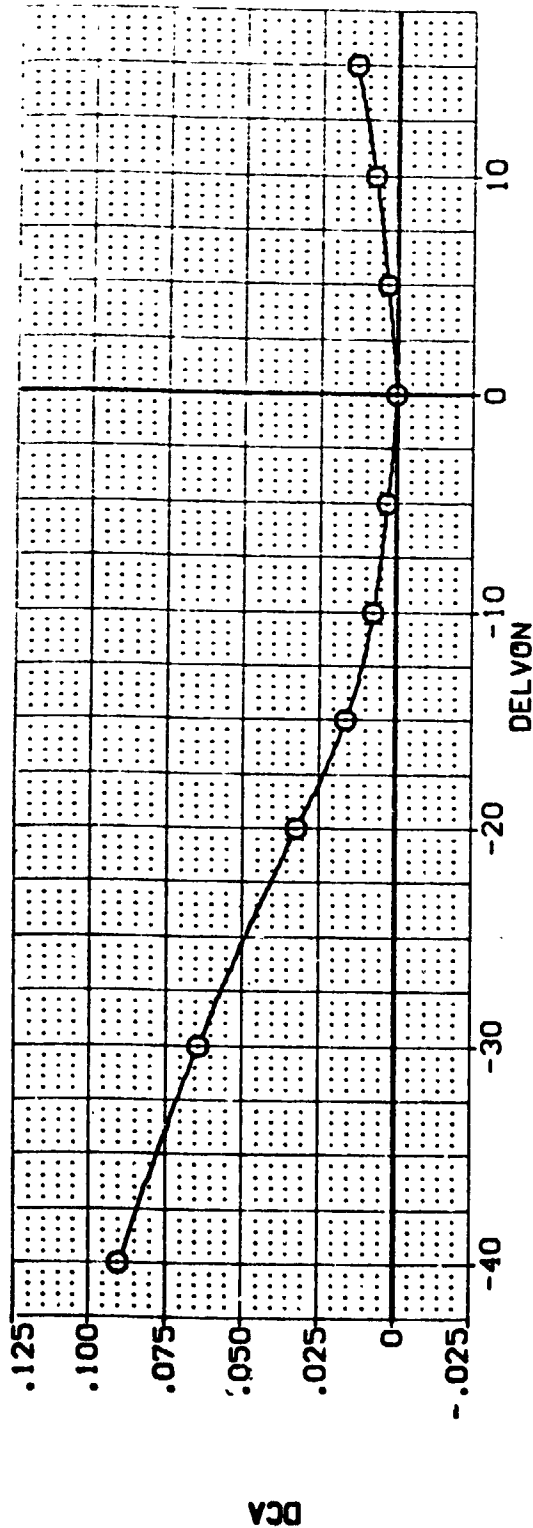


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(10Z010)

10

5.000  
MAY

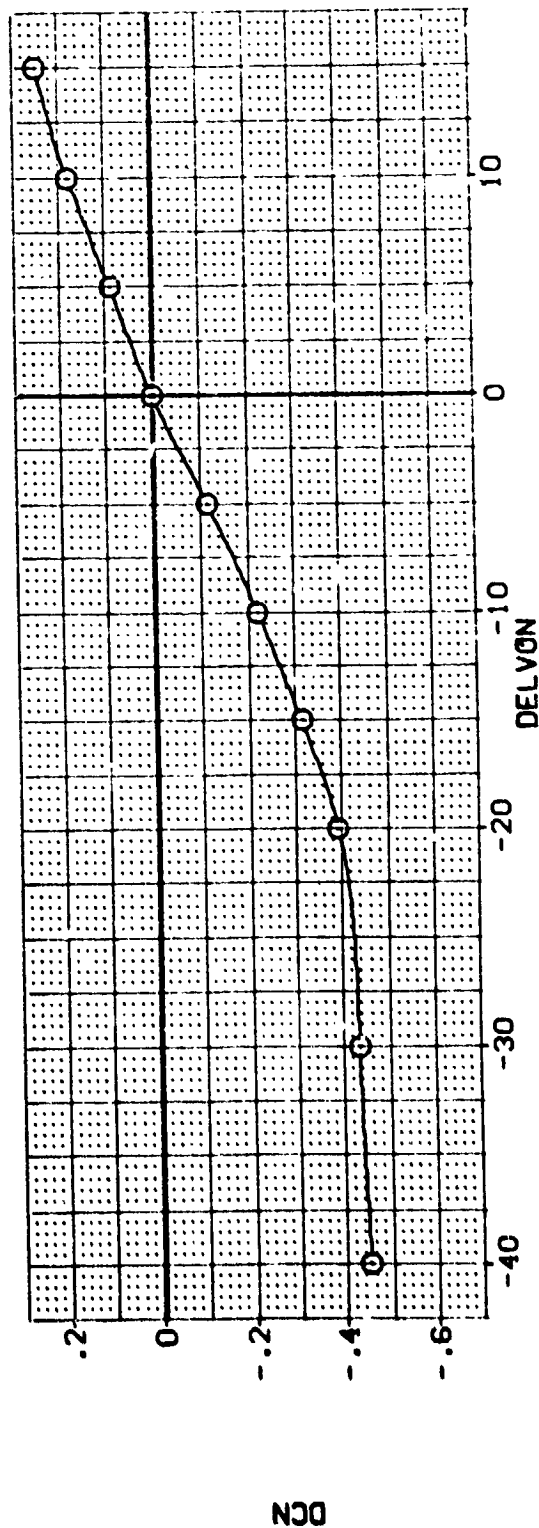
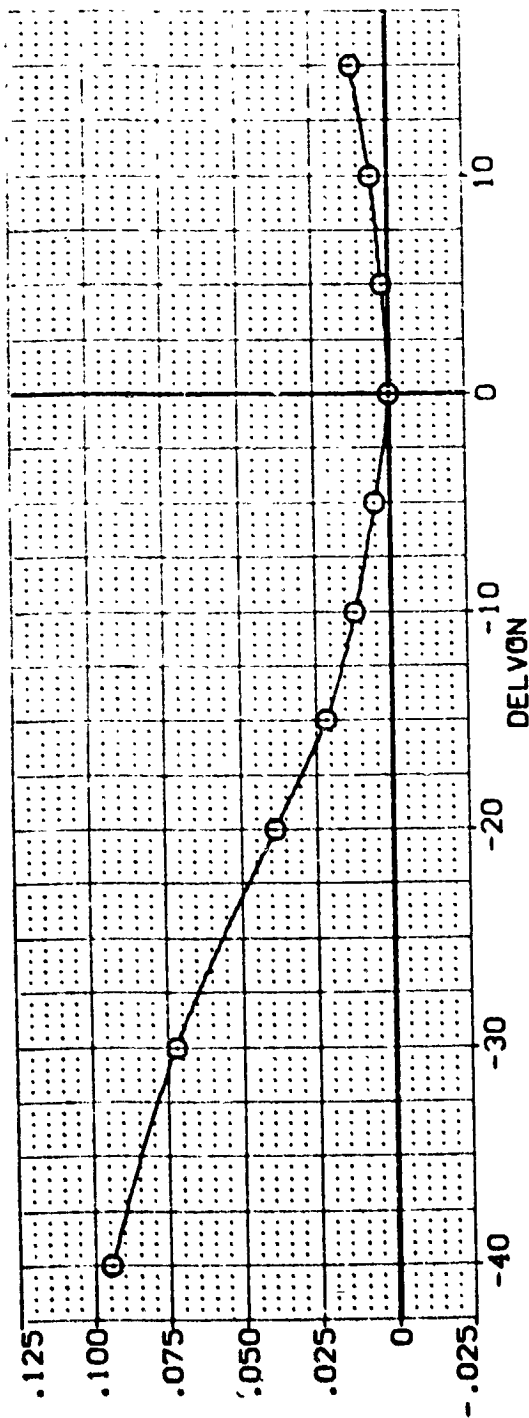
**HACH**  
**BOFLAP**  
**RUDDER**  
**H/SB**

PARAMETRIC VALUES	
BETA	.200
AILRON	-12.000
SPOBAX	.000
	.285

DATASET	DELVON	DATA SOURCE
10Z010	-40.000	
11DZ008	-20.000	
11DZ006	-10.000	
11DZ001	.000	
11DZ003	10.000	

**DATASET**  
**10Z009**  
**10Z007**  
**10Z005**  
**10Z002**  
**10Z004**

REFERENCE INFORMATION		
		SO.FT
DELVON	SREF	4.419
-30.000	LREF	19.229
-15.000	BREF	37.935
-5.000	XREF	43.594
5.000	YREF	.000
15.000	ZREF	15.1875
	SCALE	.0405



**FIG 4** ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

0A628 B28C9G15M7F8 W116E28V8R5X9

(10Z010)

SYMBOL	ALPHA	MACH	BOFLAP	FLUDDER	W/BW	PARAMETRIC VALUES	DATA SOURCE	DATASET	DEL VON	SREF	REFERENCE INFORMATION
O	10.000					BETA .200 A1LRON -12.000 SPDBFX .000 SPDBFX .265	DEL VON -40.000 -20.000 -10.000 .000 10.000	.000 10Z010 .000 10Z008 25.000 10Z006 10Z001 10Z003	-30.000 -15.000 -5.000 5.000 15.000	LREF 19.2299 BREF 37.9359 XMRP 43.5974 YMRP 0.000 ZMRP 15.1875 SCALE .0405	SO. FT. INCHES INCHES INCHES INCHES INCHES INCHES SCALE

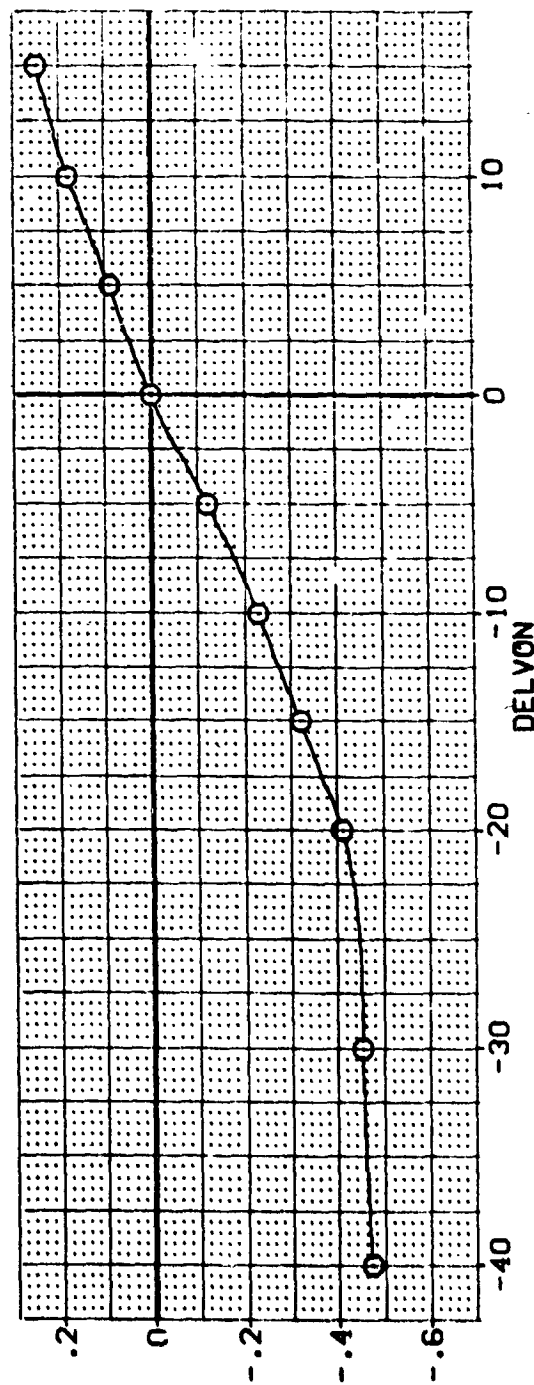
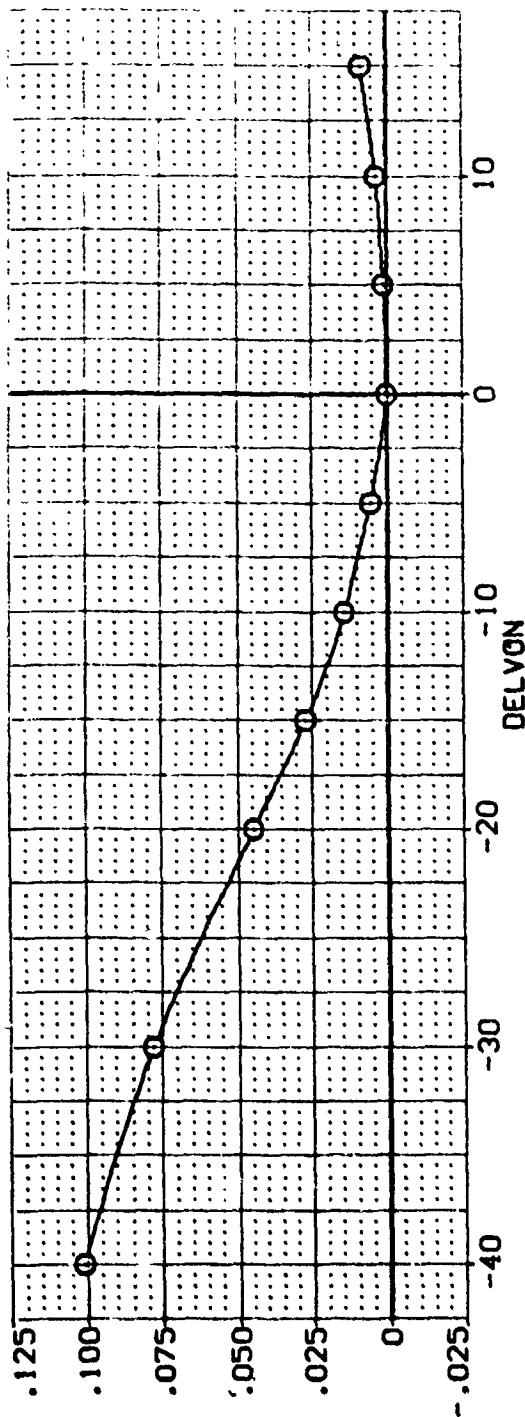


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(107010)

**SYMBOL** **Q**

**ALPHA**  
**15.000**

MACH  
BOFLAP  
RUDDER  
H/BV

PARAMETER  
 .200  
 .12.000  
 .000  
 .285

VALUES  
ETA  
FILRON  
PDERK

5.000  
.000  
.000

	DA
SET	DEI
10	-11
08	-26
06	-10
01	11
03	

SOURCE	000000
--------	--------

SET	DE
09	-3
07	-1
05	-
02	-
04	1

1	DO	SREF
2	DO	LREF
3	DO	BREF
4	DO	XMRP
5	DO	YMRP
6	DO	ZMRP
7	DO	SCAL

REFERENCE  
4.4111  
19.229  
37.935  
43.597  
.000  
15.187  
040

50. F  
INC  
INC  
INC  
INC  
INC  
34

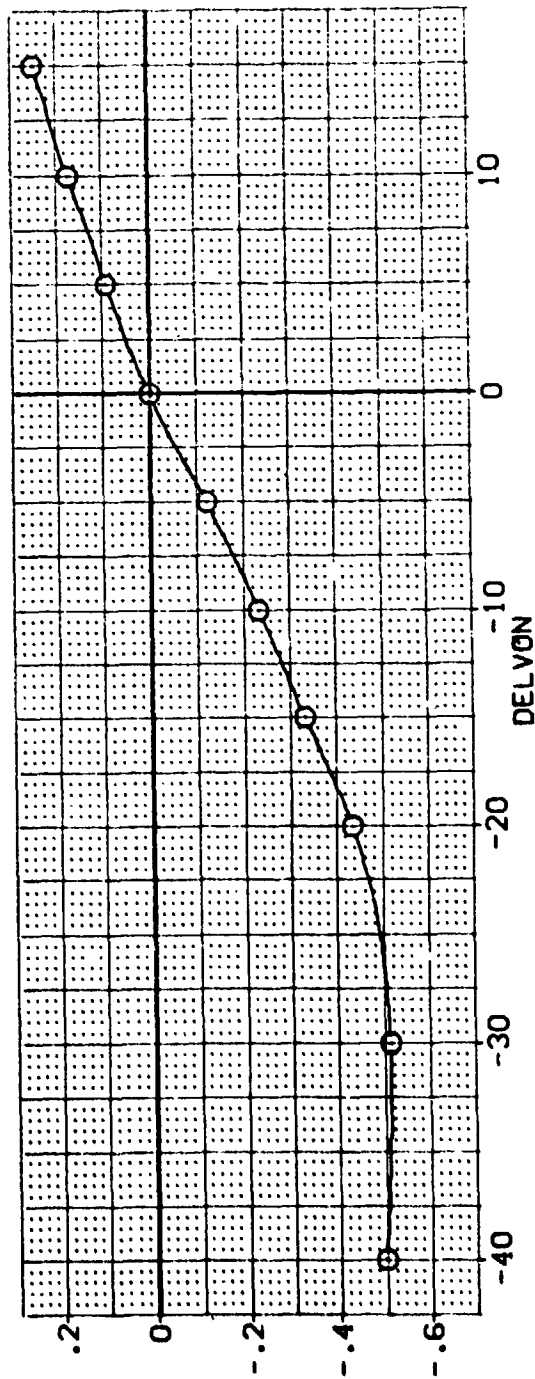
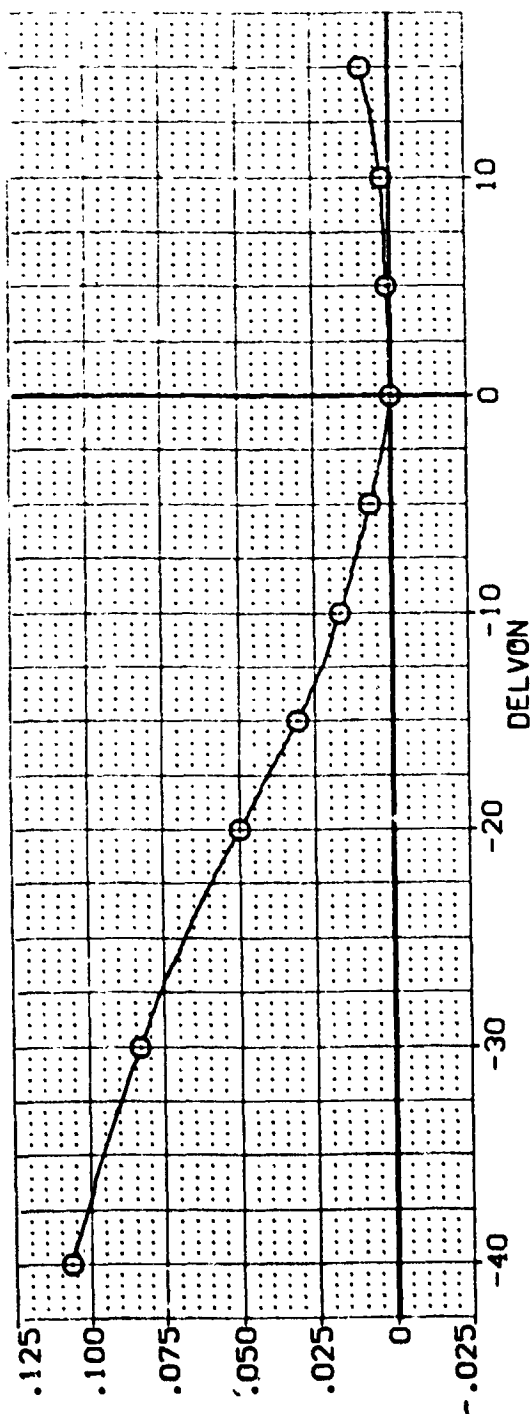


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285

(10Z010)

W116E28V8R5X9

B26C9G15M7F8

0A628

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	20.000		BETA	DELTON	SREF
			A1LRON	10Z009	LREF
			SPDRBK	10Z007	BREF
				10Z005	XRRP
				10Z002	YRRP
				10Z004	ZRRP
					SCALE
					SO.FT.
					INCHES
					INCHES
					INCHES
					INCHES
					INCHES
					SCALE

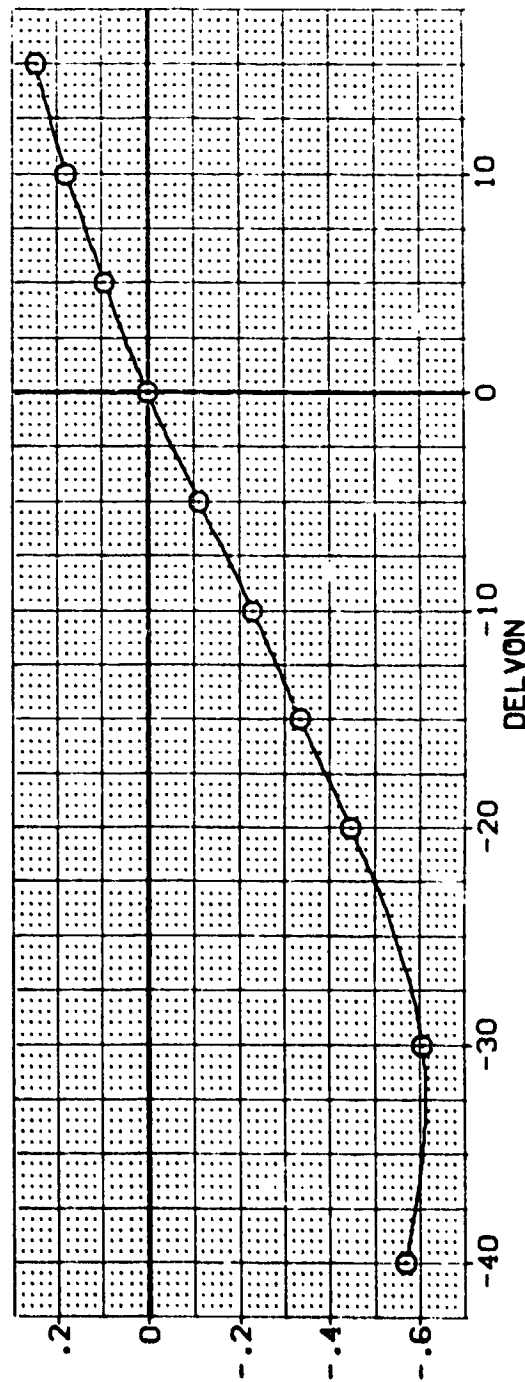
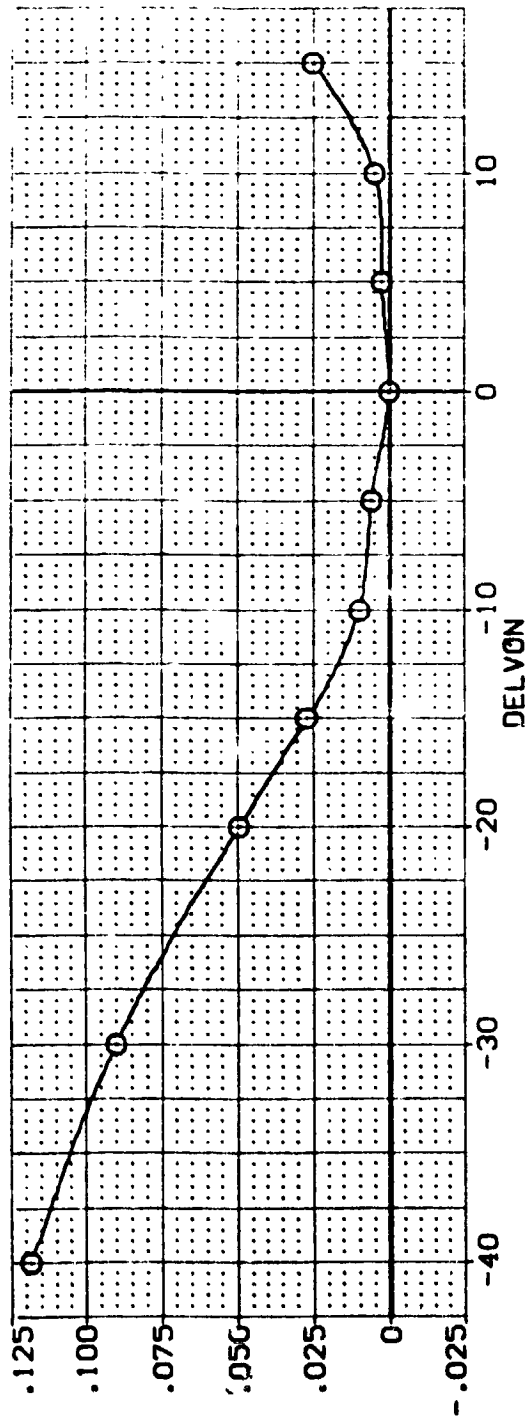


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285



0A62B B26C9G15M7F8

SYMBOL	ALPHA	MACH	BDFLAP	RUDDER	H/BW	PARAMETRIC VALUES	.000	DATASET	DELTVN	DATA SOURCE	DATASET	DELTVN	SREF	REFERENCE INFORMATION
O	25.000					BETA	.200				IDZ010	-30.000	LREF	19.42119
						AIRLN	-12.000				IDZ008	-20.000	BREF	19.27599
						SPDRBK	.000	25.000			IDZ007	-15.000	XBRP	37.9259
							.285				IDZ006	-10.000	YMRP	43.5914
											IDZ001	.000	ZMRP	15.1875
											IDZ003	10.000	SCALE	.0405

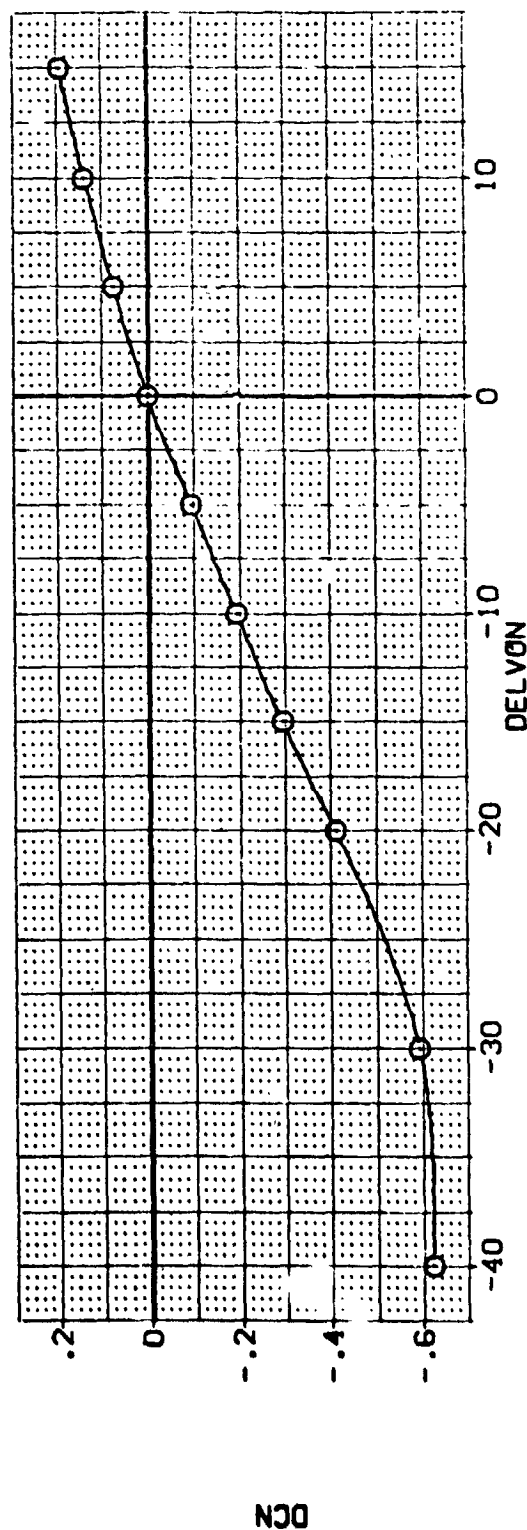
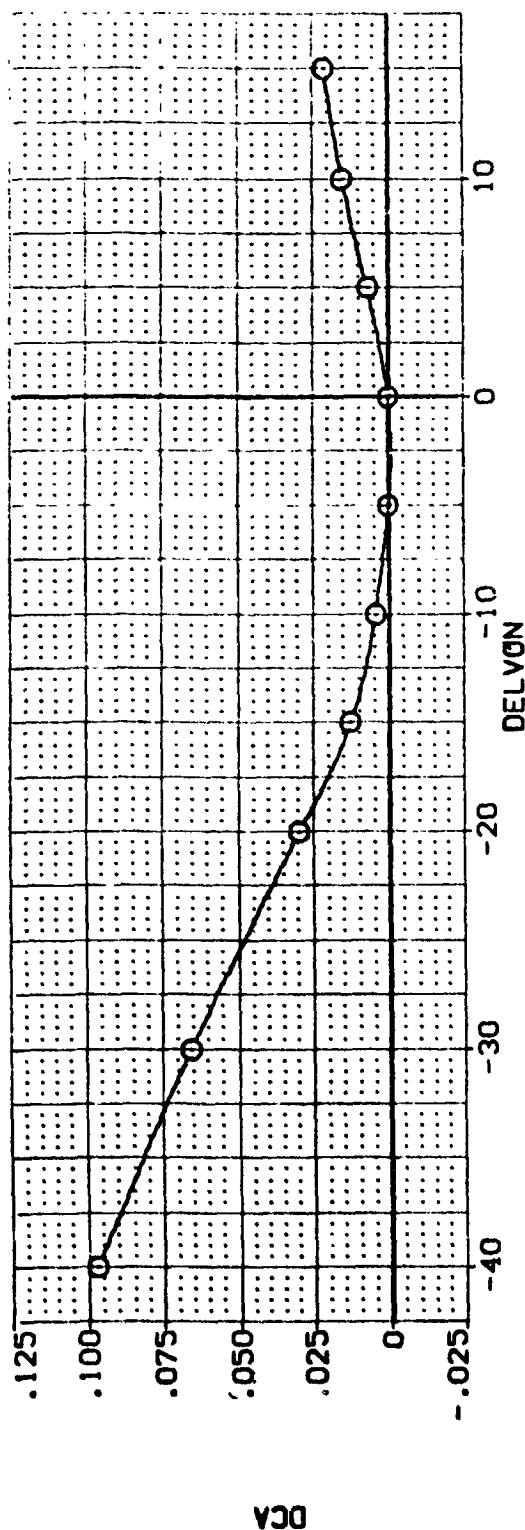


FIG 4 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.285



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BOFLAP	REFERENCE INFORMATION
(802016)	0A6Z8 B26C9G1S47F8 V116E28V8R5X9	-5.000	.178	25.000	-12.000	SREF 4.4119 SO.FT.
(802017)	0A6Z8 B26C9G1S47F8 V116E28V8R5X9	5.000	.178	25.000	-12.000	LREF 19.2298 INCHES
(802018)	0A6Z8 B26C9G1S47F8 V116E28V8R5X9	10.000	.178	25.000	-12.000	BREF 37.9559 INCHES
(802019)	0A6Z8 B26C9G1S47F8 V116E28V8R5X9	15.000	.178	25.000	-12.000	XPRP 43.5574 INCHES
						YPRP .0000 INCHES
						ZPRP 15.1875 INCHES
						SCALE .0405

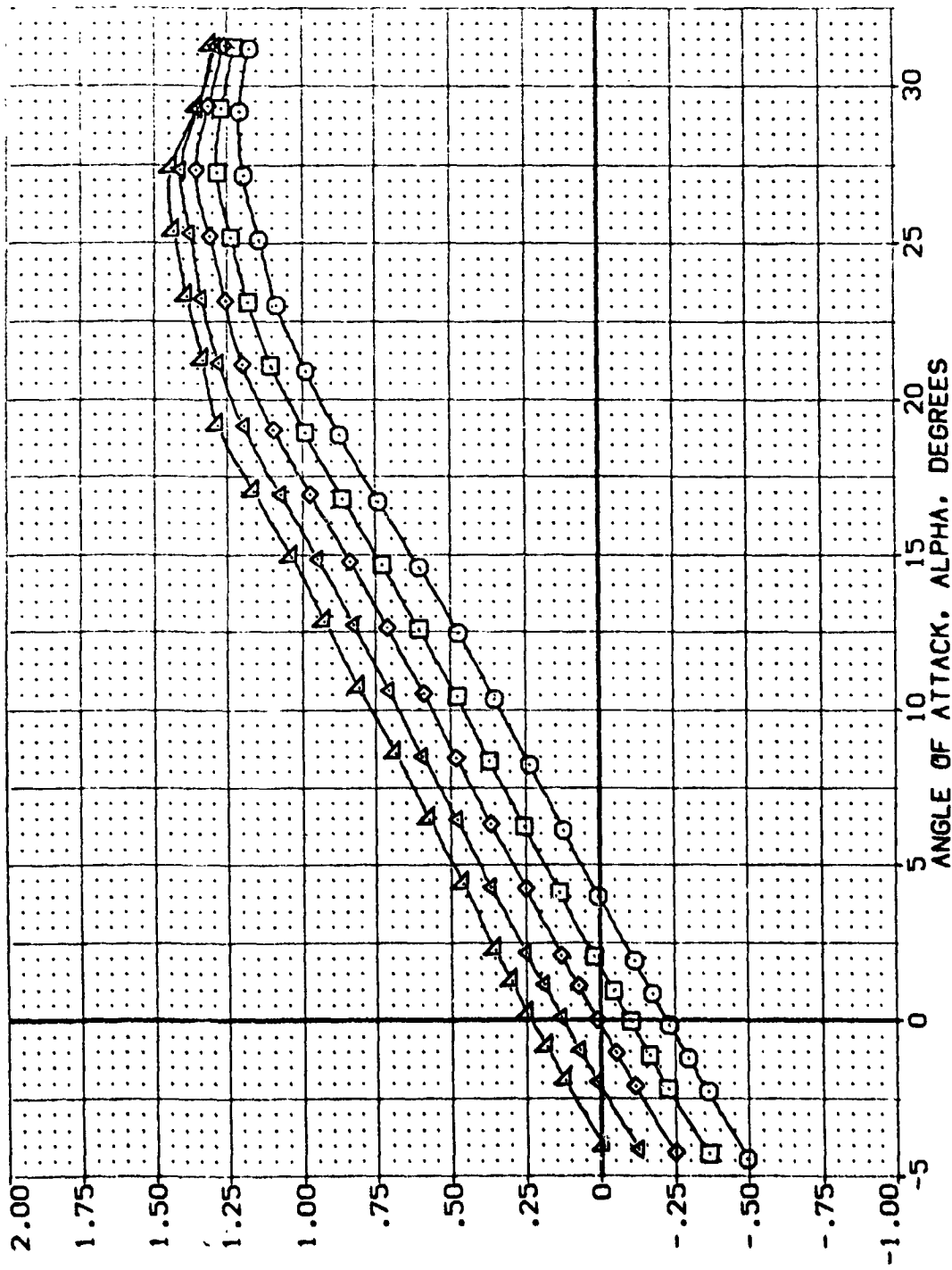


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BDFLAP	REFERENCE INFORMATION
(B02016)	0A62B B26C9G1SH7F8 V116E28V8FSX9	-5.000	.178	25.000	-12.000	SREF 4.4119 50. FT.
(B02020)	0A62B B26C9G1SH7F8 V116E28V8FSX9	.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(B02019)	0A62B B26C9G1SH7F8 V116E28V8FSX9	5.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(B02018)	0A62B B26C9G1SH7F8 V116E28V8FSX9	10.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(B02017)	0A62B B26C9G1SH7F8 V116E28V8FSX9	15.000	.178	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

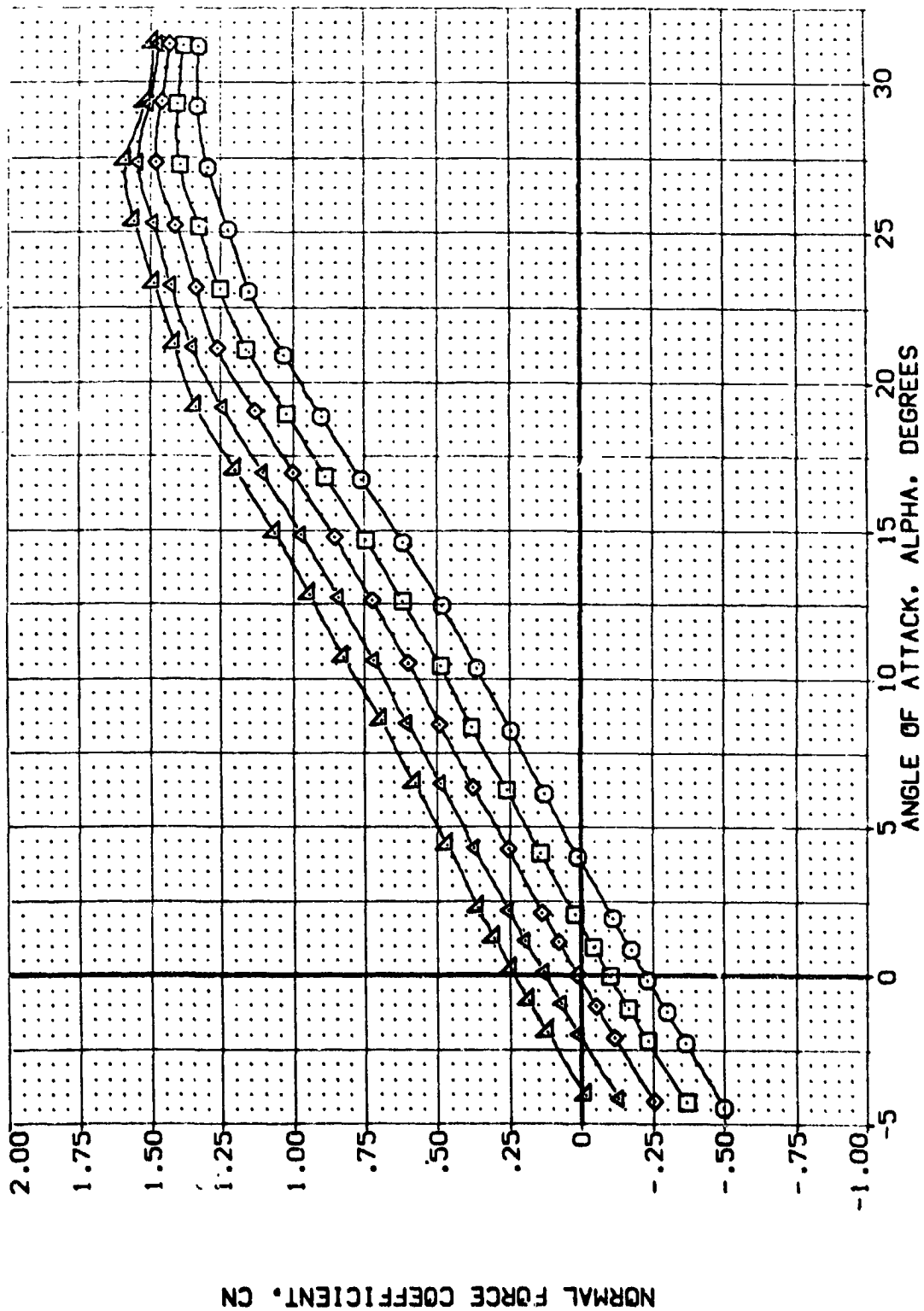


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

43

43

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802016)	0A628 B26C9G1SMTF8 V116E28V85X9	-5.000	.178	25.000	-12.000	SREF 4.4119 SQ.FT.
(802020)	0A628 B26C9G1SMTF8 V116E28V85X9	.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(802019)	0A628 B26C9G1SMTF8 V116E28V85X9	5.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(802018)	0A628 B26C9G1SMTF8 V116E28V85X9	10.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(802017)	0A628 B26C9G1SMTF8 V116E28V85X9	15.000	.178	25.000	-12.000	YMRP 15.0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

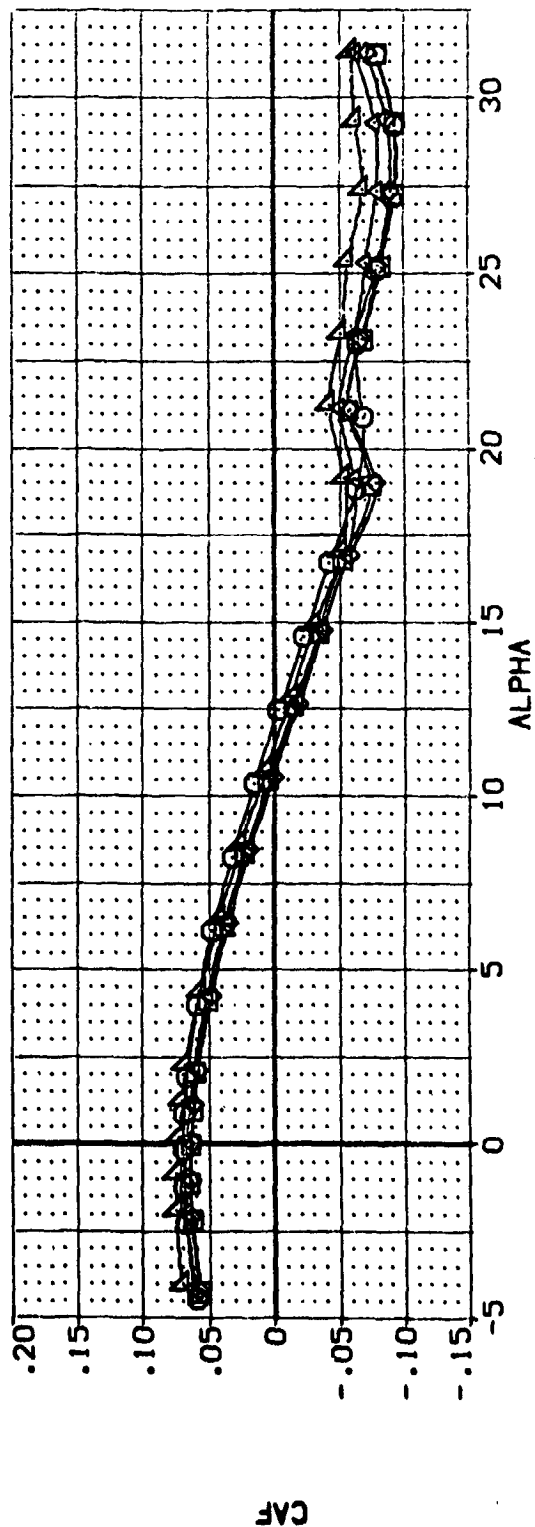
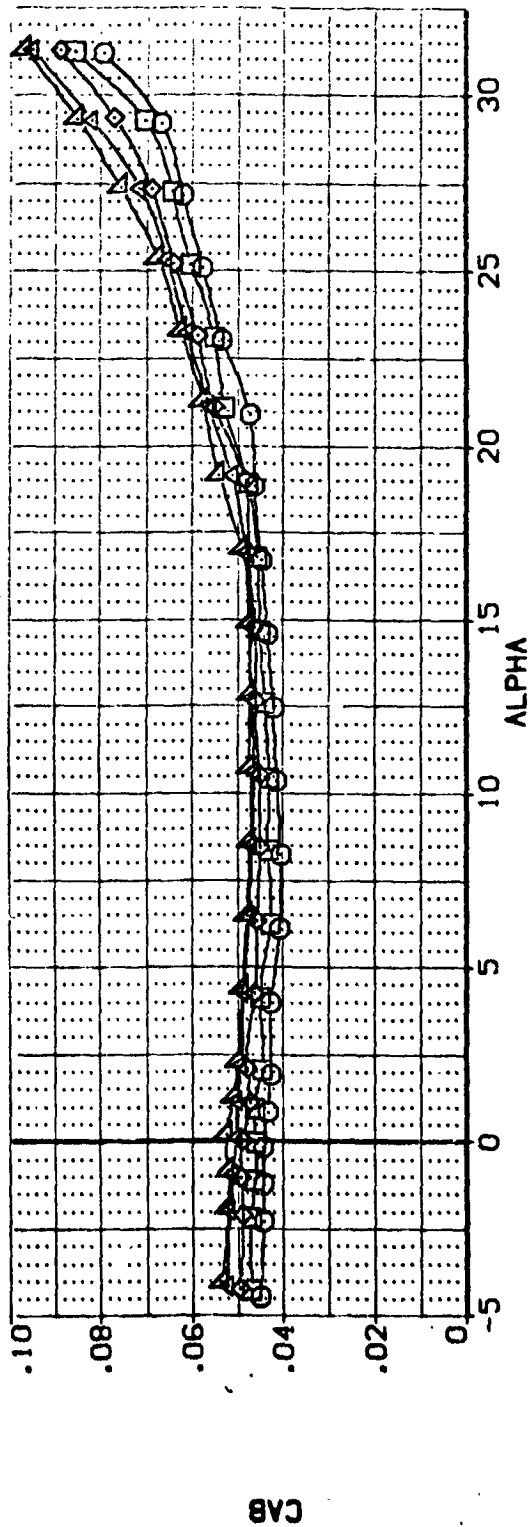


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802016)	0A628 B26C9G15H7F8 V116E28V8R5X9	-5.000	.178	25.000	-12.000	SREF 4.4119 SO.FT
(802020)	0A628 B26C9G15H7F8 V116E28V8R5X9	.000	.178	25.000	-12.000	LREF 19.2293 INCHES
(802019)	0A628 B26C9G15H7F8 V116E28V8R5X9	5.000	.178	25.000	-12.000	BREF 37.5359 INCHES
(802018)	0A628 B26C9G15H7F8 V116E28V8R5X9	10.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(802017)	0A628 B26C9G15H7F8 V116E28V8R5X9	15.000	.178	25.000	-12.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405 INCHES

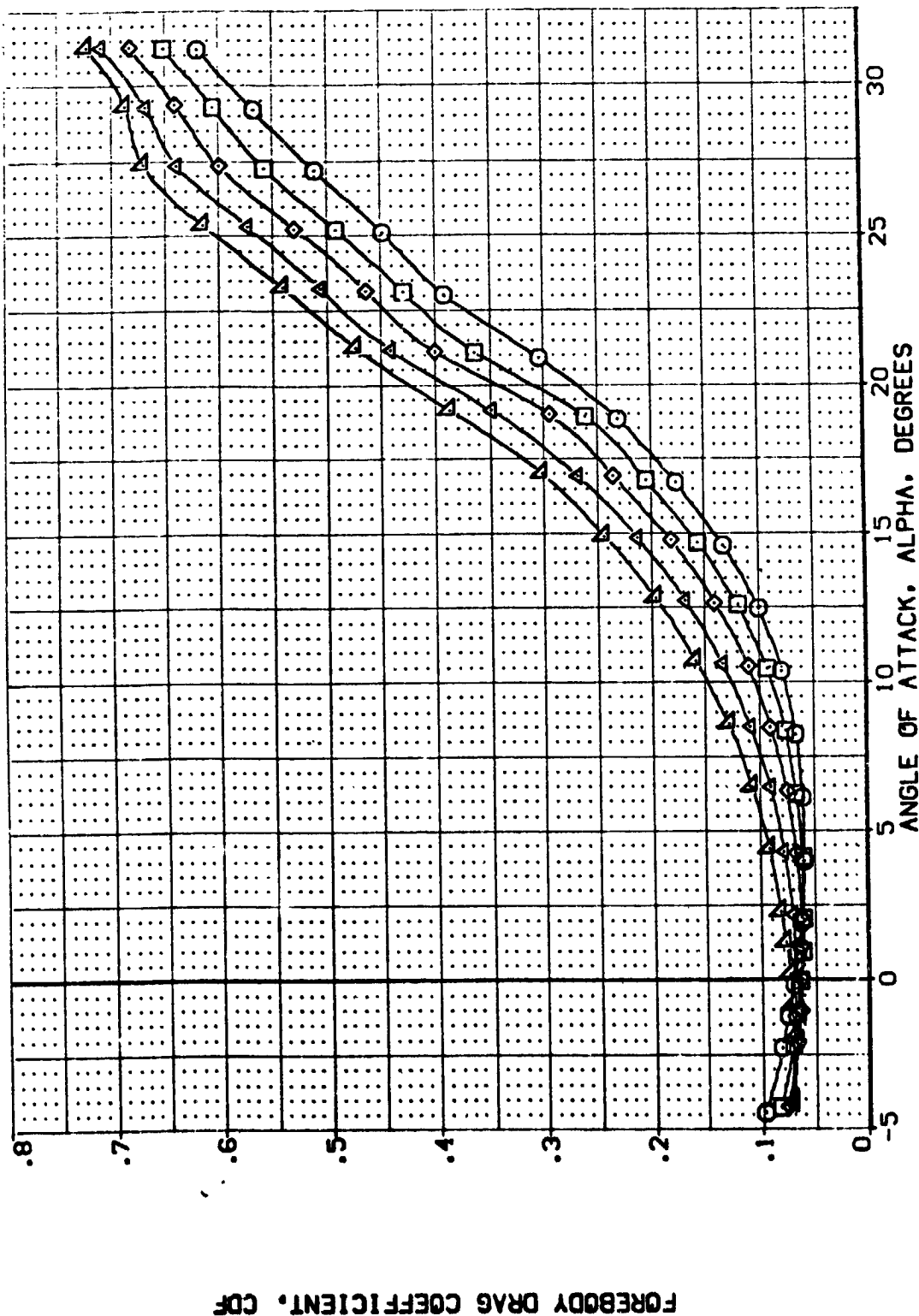


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(BD2016)	0A628 B26C9G1SM7F8	-5.000	.178	25.000	-12.000	SREF 4.4119 SQ.FT.
(BD2020)	0A628 B26C9G1SM7F8	5.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(BD2019)	0A628 B26C9G1SM7F8	10.000	.178	25.000	-12.000	XMRP 37.9359 INCHES
(BD2018)	0A628 B26C9G1SM7F8	15.000	.178	25.000	-12.000	YMRP 43.5974 INCHES
(BD2017)	0A628 B26C9G1SM7F8	15.000	.178	25.000	-12.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES

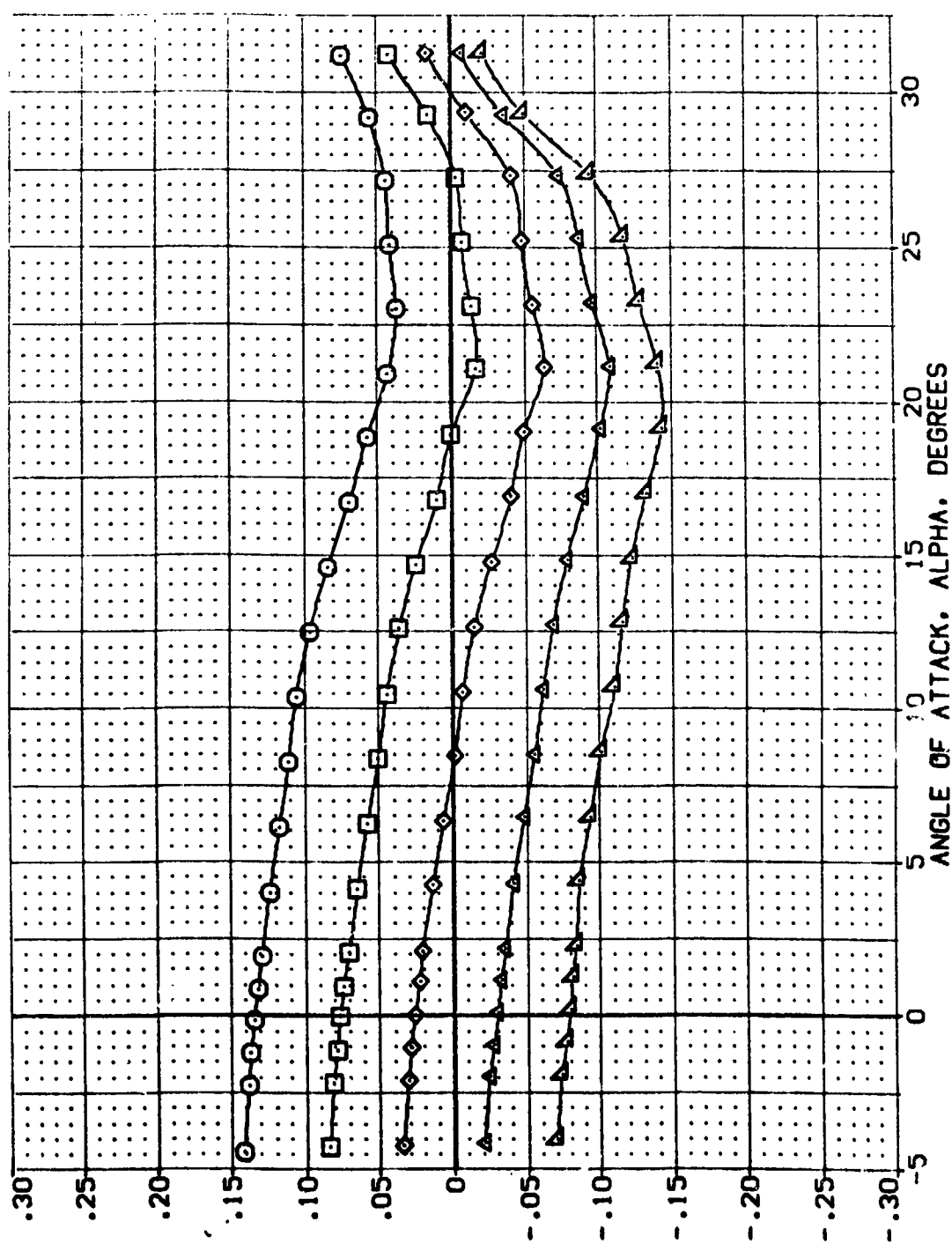


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION	SD, FT
-5.000	.178	25.000	-12.000	SREF	4.4119
5.000	.178	25.000	-12.000	LREF	19.2299
10.000	.178	25.000	-12.000	MREF	37.5359
15.000	.178	25.000	-12.000	YMRP	43.5974
				ZMRP	.0000
				SCALE	15.1875
				SCALE	.0405

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(802015)	0A628 826C6154778 V116E28V8R5X9
(802020)	0A628 826C6154778 V116E28V8R5X9
(802019)	0A628 826C6154778 V116E28V8R5X9
(802018)	0A628 826C6154778 V116E28V8R5X9
(802017)	0A628 826C6154778 V116E28V8R5X9

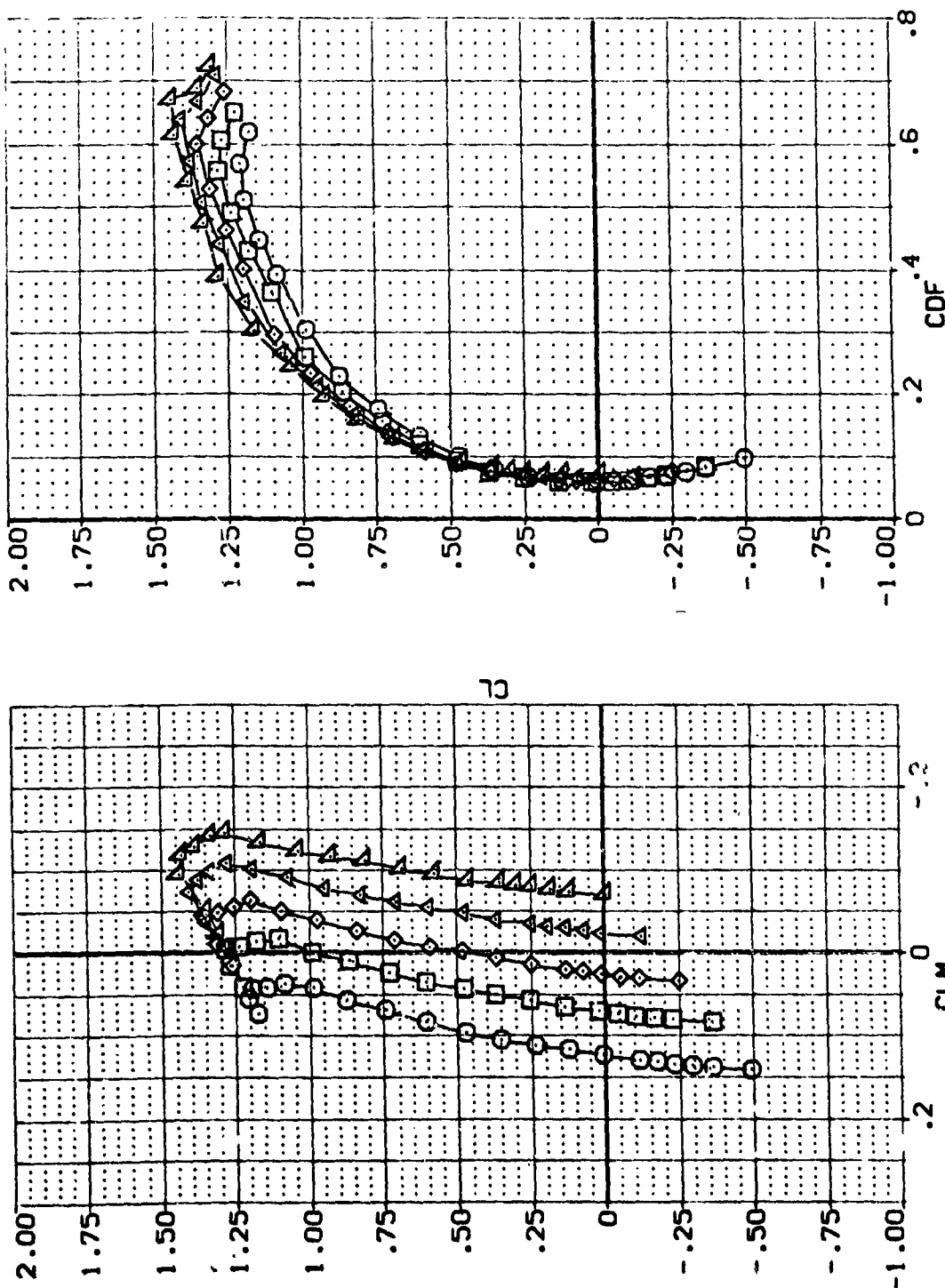


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

CLMACH = .20



1-1

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(802016)	QAS28 B28C9015M1F8 V116E28V8RSXS9
(802020)	QAS28 B28C9015M1F8 V116E28V8RSXS9
(802019)	QAS28 B28C9015M1F8 V116E28V8RSXS9
(802018)	QAS28 B28C9015M1F8 V116E28V8RSXS9
(802017)	QAS28 B28C9015M1F8 V116E28V8RSXS9

ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
-5.000	.178	25.000	-12.000	SREF 4.4119 SD.FT. INCHES
.000	.178	25.000	-12.000	LREF 19.2299 INCHES
5.000	.178	25.000	-12.000	BREF 37.9359 INCHES
10.000	.178	25.000	-12.000	YMRP 43.5974 INCHES
15.000	.178	25.000	-12.000	ZMRP .0000 INCHES
				SCALE 15.1675 INCHES
				SCALE .0405

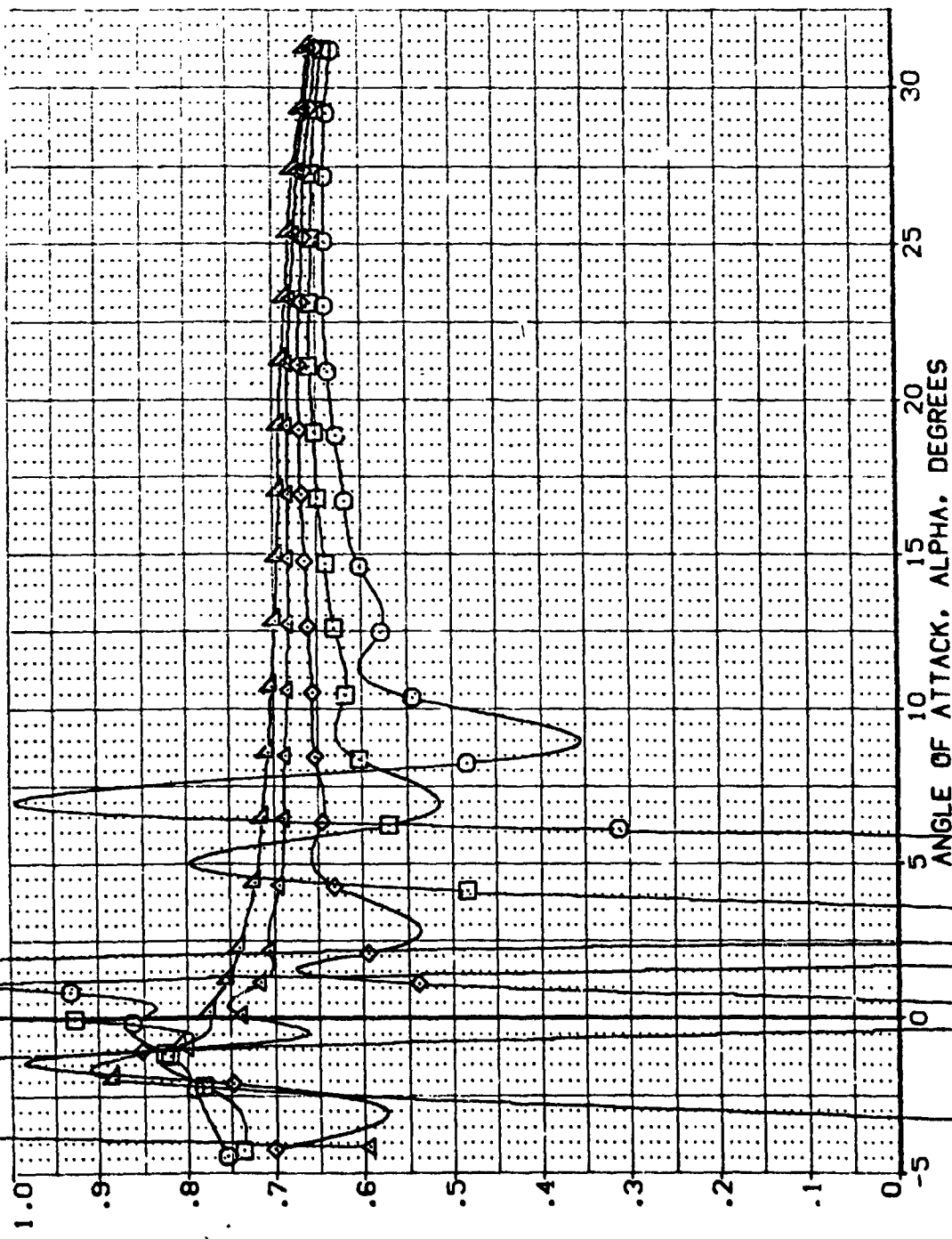


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/W	SPDRK	EDFLAP	REFERENCE INFORMATION
(B02016)	0A628 B26C9G15HTF8 V11GE28V8R5X9	-5.000	.178	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02020)	0A628 B26C9G15HTF8 V11GE28V8R5X9	.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(B02019)	0A628 B26C9G15HTF8 V11GE28V8R5X9	5.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(B02018)	0A628 B26C9G15HTF8 V11GE28V8R5X9	10.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(B02017)	0A628 B26C9G15HTF8 V11GE28V8R5X9	15.000	.178	25.000	-12.000	ZMRP 15.0000 INCHES
						SCALE .0405 INCHES

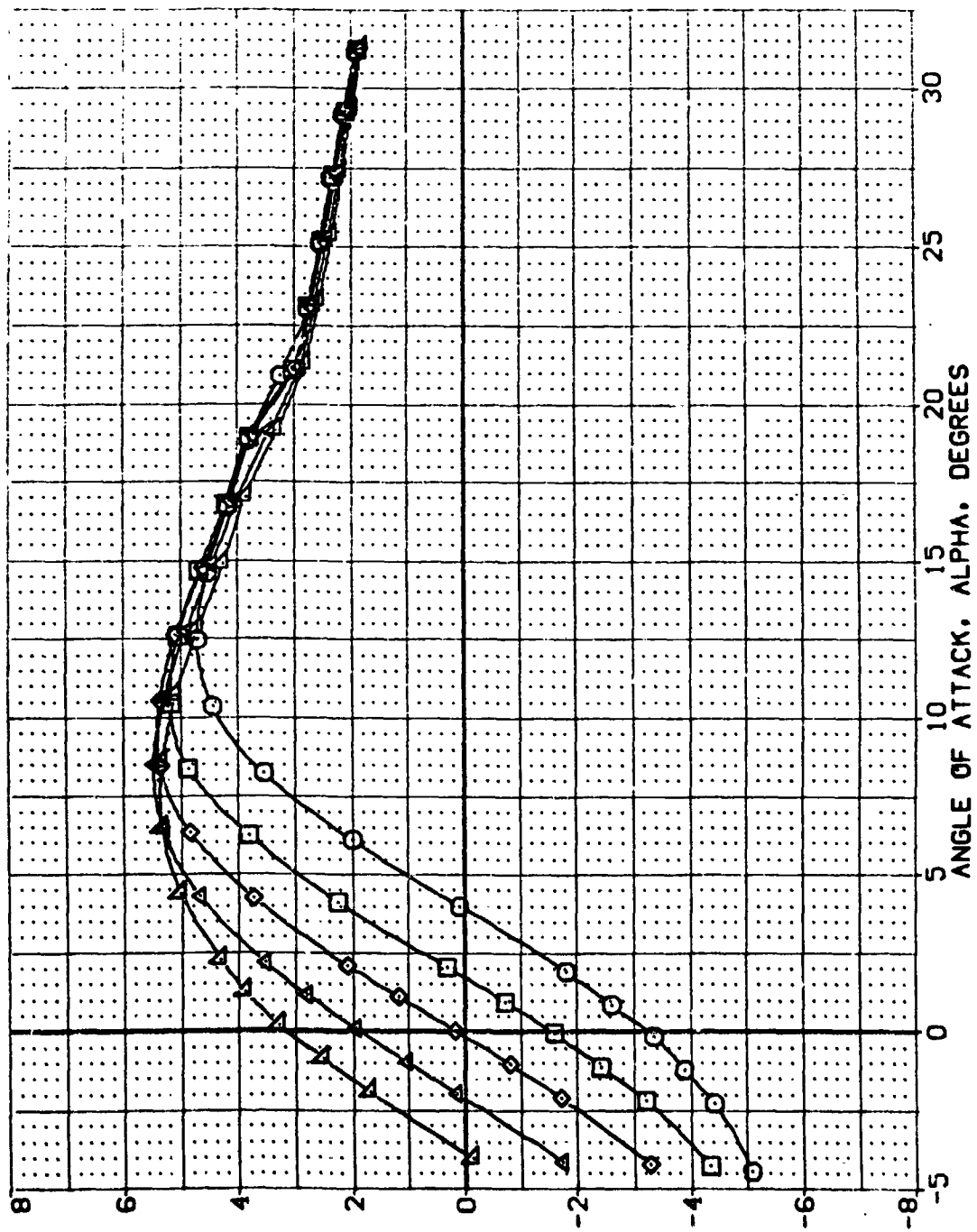


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(B07011)	0A628 B26C9G1S47F8 V116E28V8FSX9	-40.000	.178	25.000	-12.000	SREF 4.4119 SO.FT.
(B07012)	0A628 B26C9G1S47F8 V116E28V8FSX9	-30.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(B07013)	0A628 B26C9G1S47F8 V116E28V8FSX9	-20.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(B07014)	0A628 B26C9G1S47F8 V116E28V8FSX9	-15.000	.178	25.000	-12.000	XMPR 43.5974 INCHES
(B07015)	0A628 B26C9G1S47F8 V116E28V8FSX9	-10.000	.178	25.000	-12.000	YMPR 0.000 INCHES
(B07020)	0A628 B26C9G1S47F8 V116E28V8FSX9	.000	.178	25.000	-12.000	ZMPR 15.1875 INCHES
						SCALE .0405

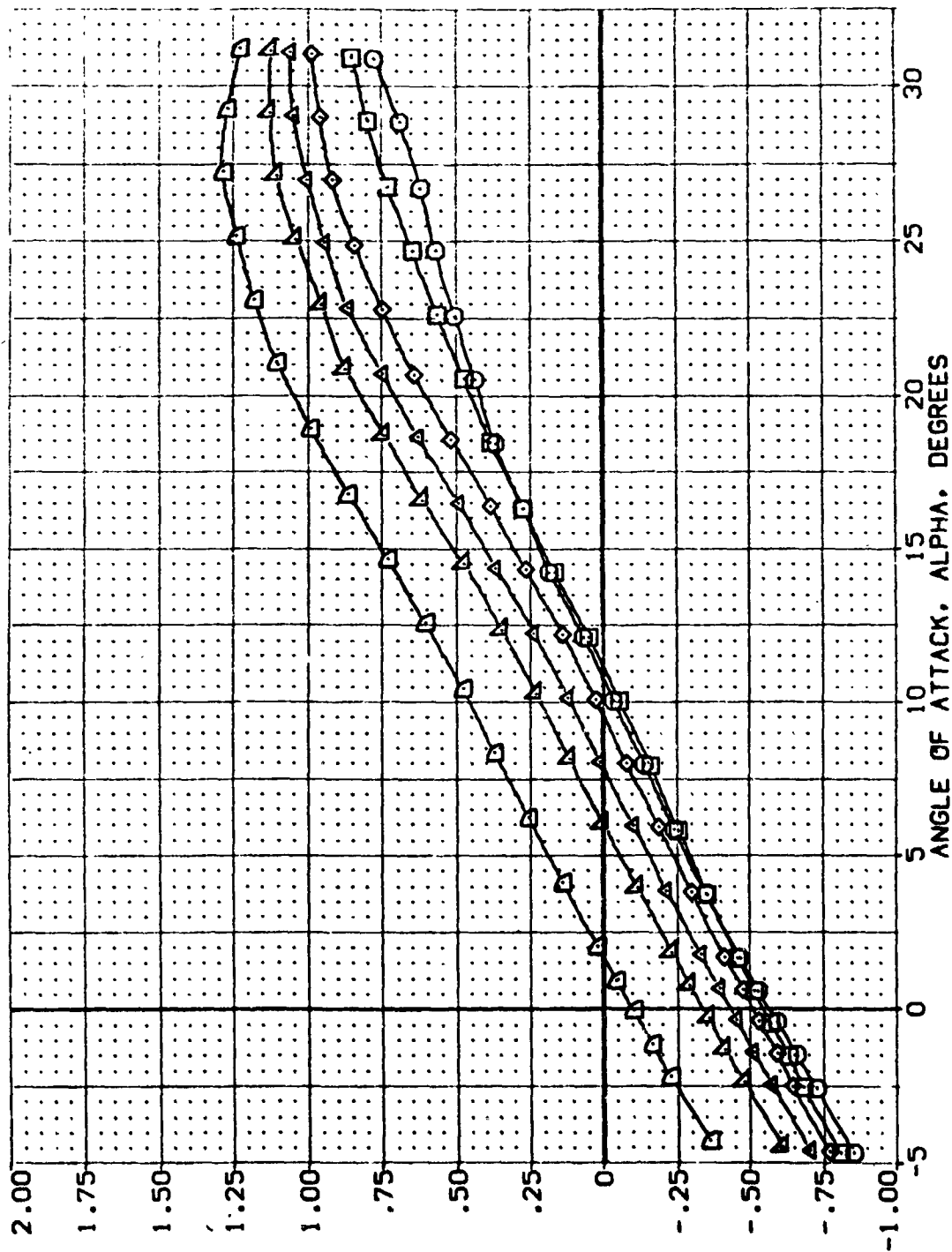


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BDFLAP	REFERENCE INFORMATION
(802011)	0A628 B26C9G1S47F8 V116E28V8R5X9	-40.000	.178	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(802012)	0A628 B26C9G1S47F8 V116E28V8R5X9	-20.000	.178	25.000	-12.000	LREF 19.2259 INCHES
(802013)	0A628 B26C9G1S47F8 V116E28V8R5X9	-20.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(802014)	0A628 B26C9G1S47F8 V116E28V8R5X9	-15.000	.178	25.000	-12.000	YMRP 43.5974 INCHES
(802015)	0A628 B26C9G1S47F8 V116E28V8R5X9	-10.000	.178	25.000	-12.000	ZMRP .0000 INCHES
(802020)	0A628 B26C9G1S47F8 V116E28V8R5X9	.000	.178	25.000	-12.000	SCALE 15.1875 INCHES

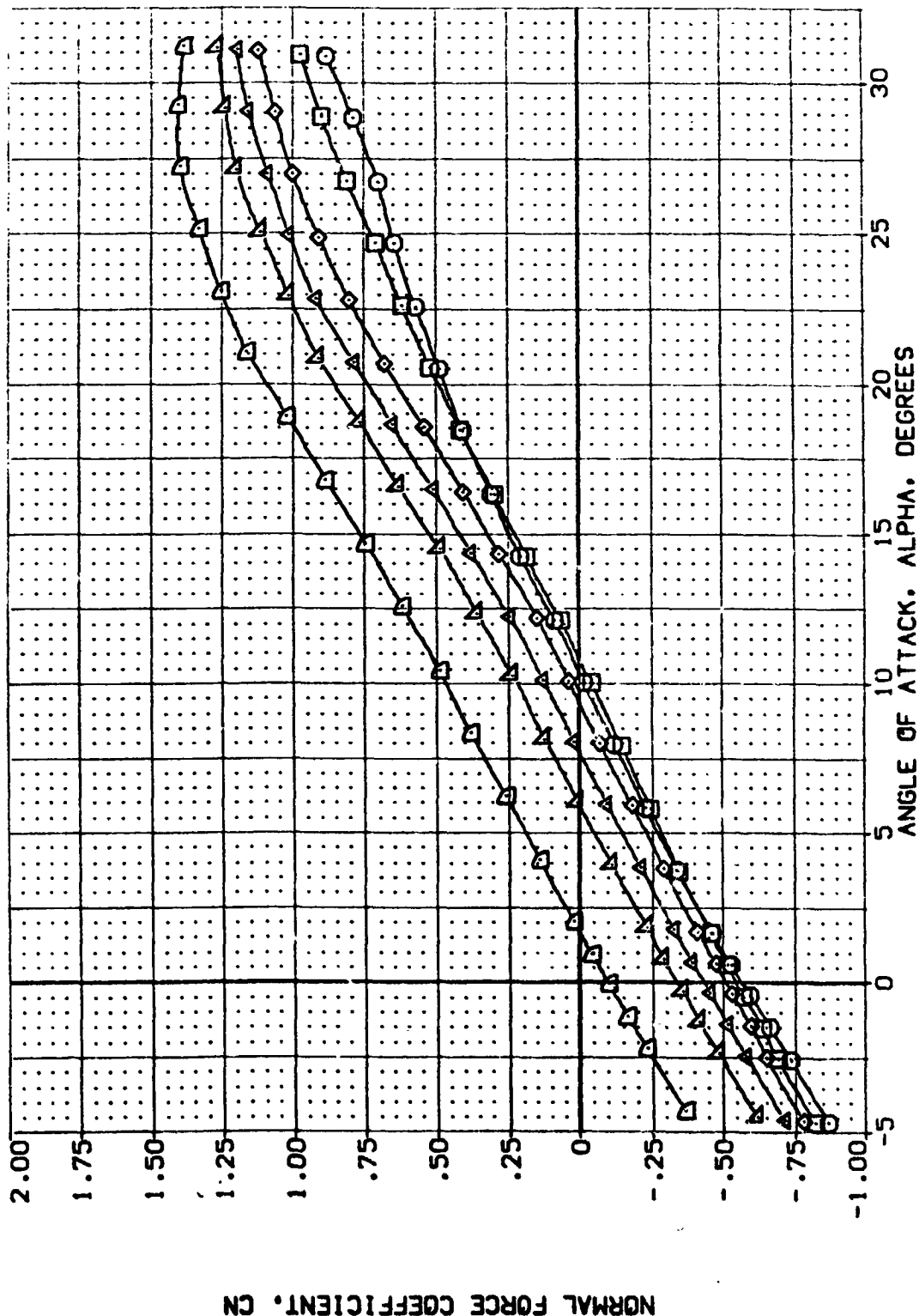


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(M)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02011)	0A628 B26C9G1SMT78	-40.000	.178	25.000	-12.000	SREF 4.4119 SO.FT.
(B02012)	0A628 B26C9G1SMT78	-30.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(B02013)	0A628 B26C9G1SMT78	-20.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(B02014)	0A628 B26C9G1SMT78	-15.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(B02015)	0A628 B26C9G1SMT78	-10.000	.178	25.000	-12.000	YMRP 15.0000 INCHES
(B02020)	0A628 B26C9G1SMT78	.000	.178	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

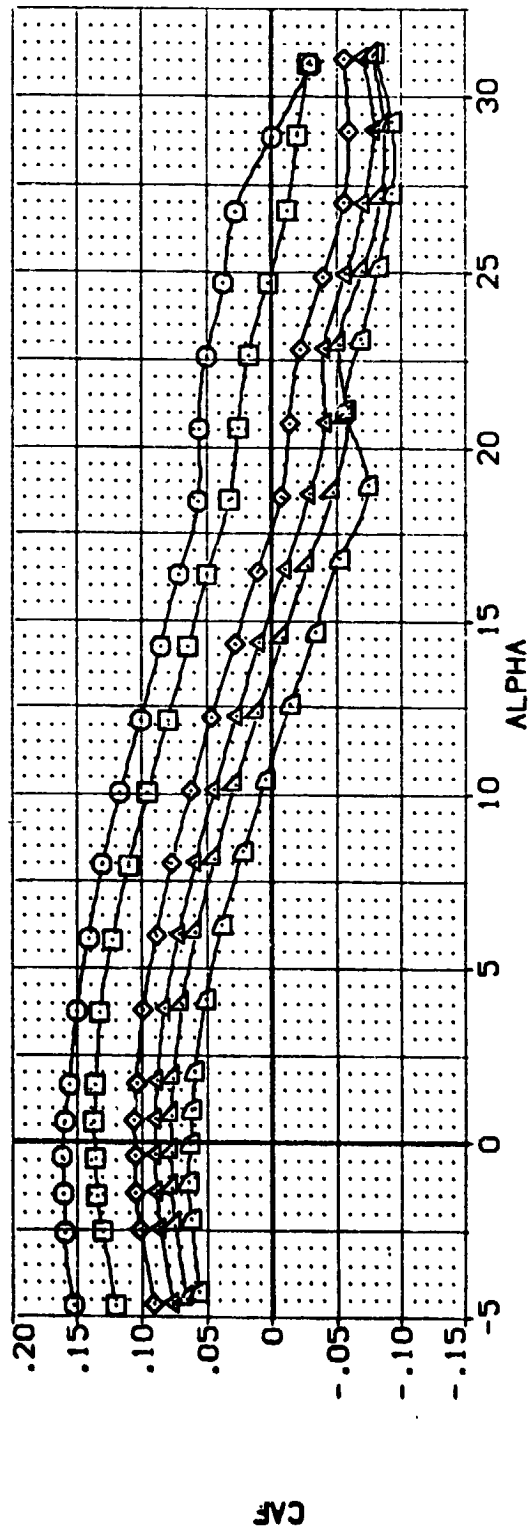
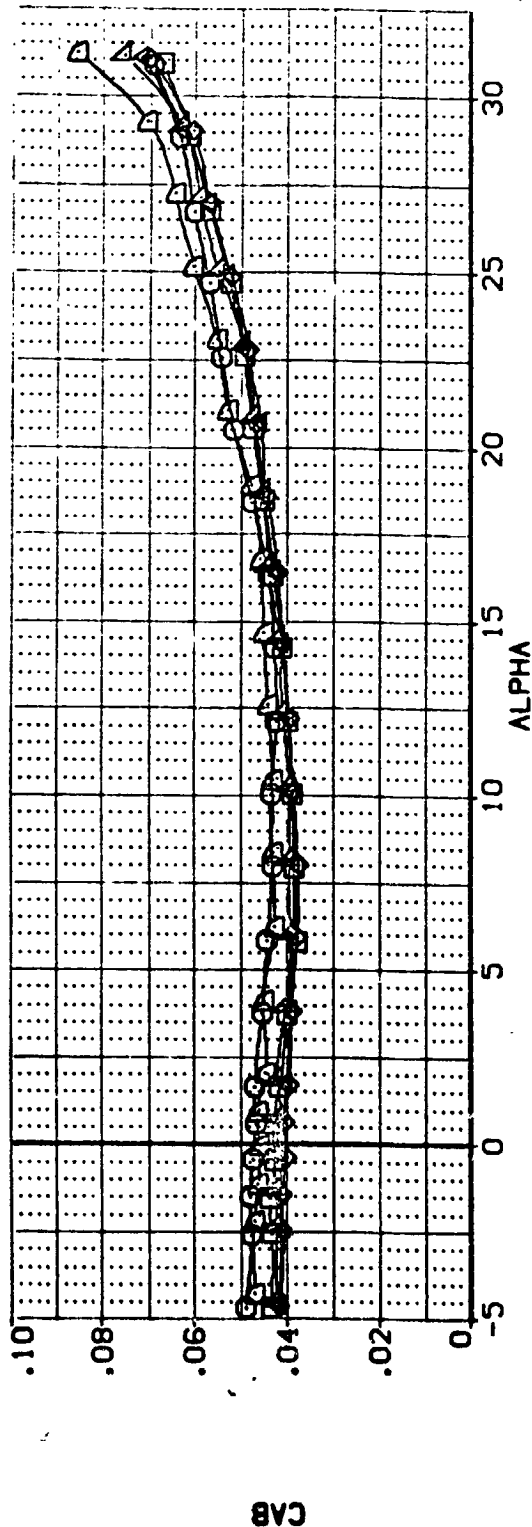


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEV. V	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802011)	04628 B26C5G1547F8 V116E28V8K5X9	-40.000	.178	25.000	-12.000	SREF 4.4119 SQ.FT.
(802012)	04628 B26C5G1547F8 V116E28V8K5X9	-30.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(802013)	04628 B26C5G1547F8 V116E28V8K5X9	-20.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(802014)	04628 B26C5G1547F8 V116E28V8K5X9	-15.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(802015)	04628 B26C5G1547F8 V116E28V8K5X9	-10.000	.178	25.000	-12.000	YMRP 15.0000 INCHES
(802020)	04628 B26C5G1547F8 V116E28V8K5X9	.000	.178	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

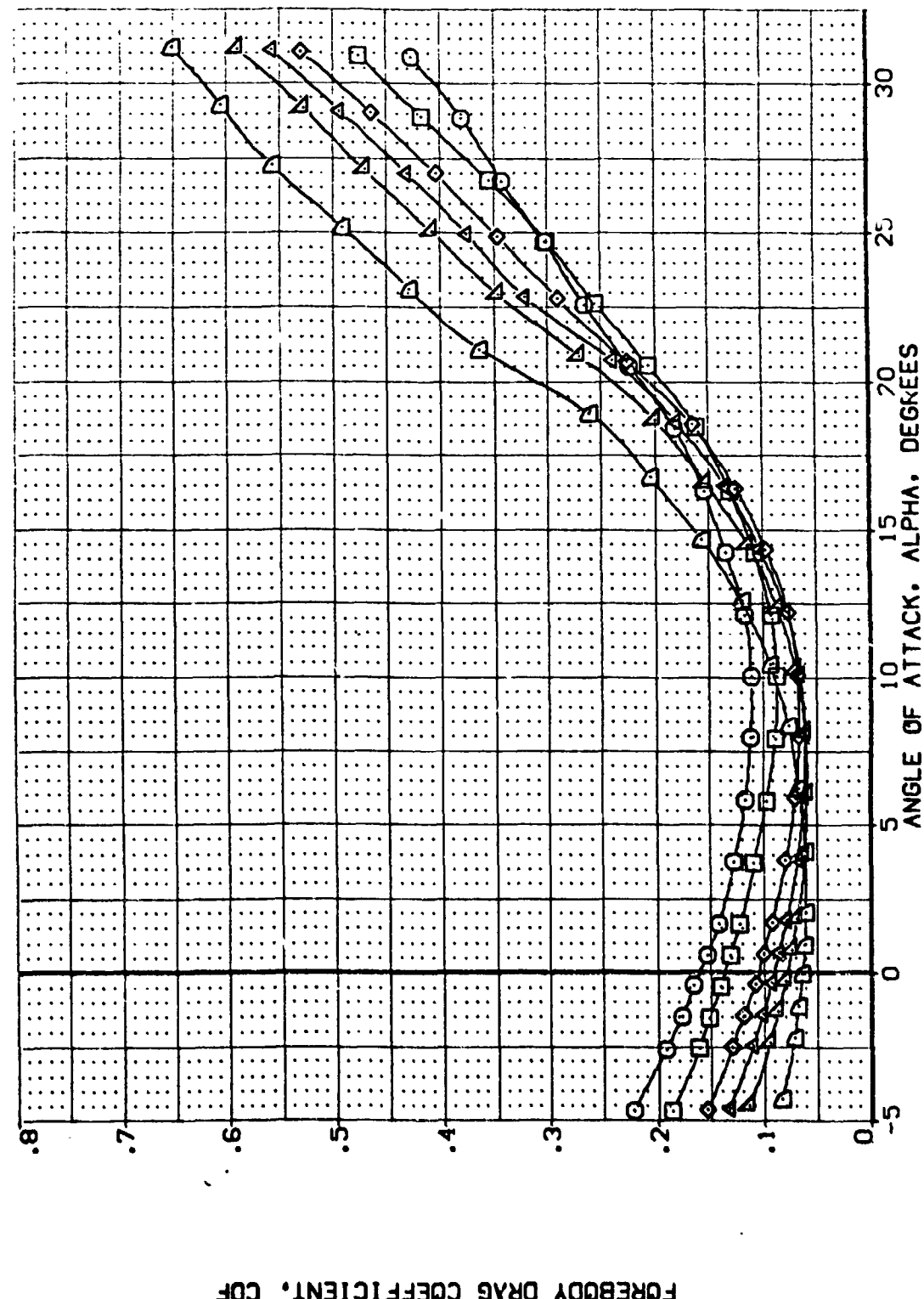


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02011)	0A628 B26C9G1 5M7F8 V116E28VBR5X9	-10.000	.178	25.000	-12.000	SREF 4.4119 SO.FT.
(B02012)	0A628 B26C9G1 5M7F8 V116E28VBR5X9	-20.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(B02013)	0A628 B26C9G1 5M7F8 V116E28VBR5X9	-20.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(B02014)	0A628 B26C9G1 5M7F8 V116E28VBR5X9	-15.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(B02015)	0A628 B26C9G1 5M7F8 V116E28VBR5X9	-10.000	.178	25.000	-12.000	ZMRP .0000 INCHES
(B02020)	0A628 B26C9G1 5M7F8 V116E28VBR5X9	.000	.178	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

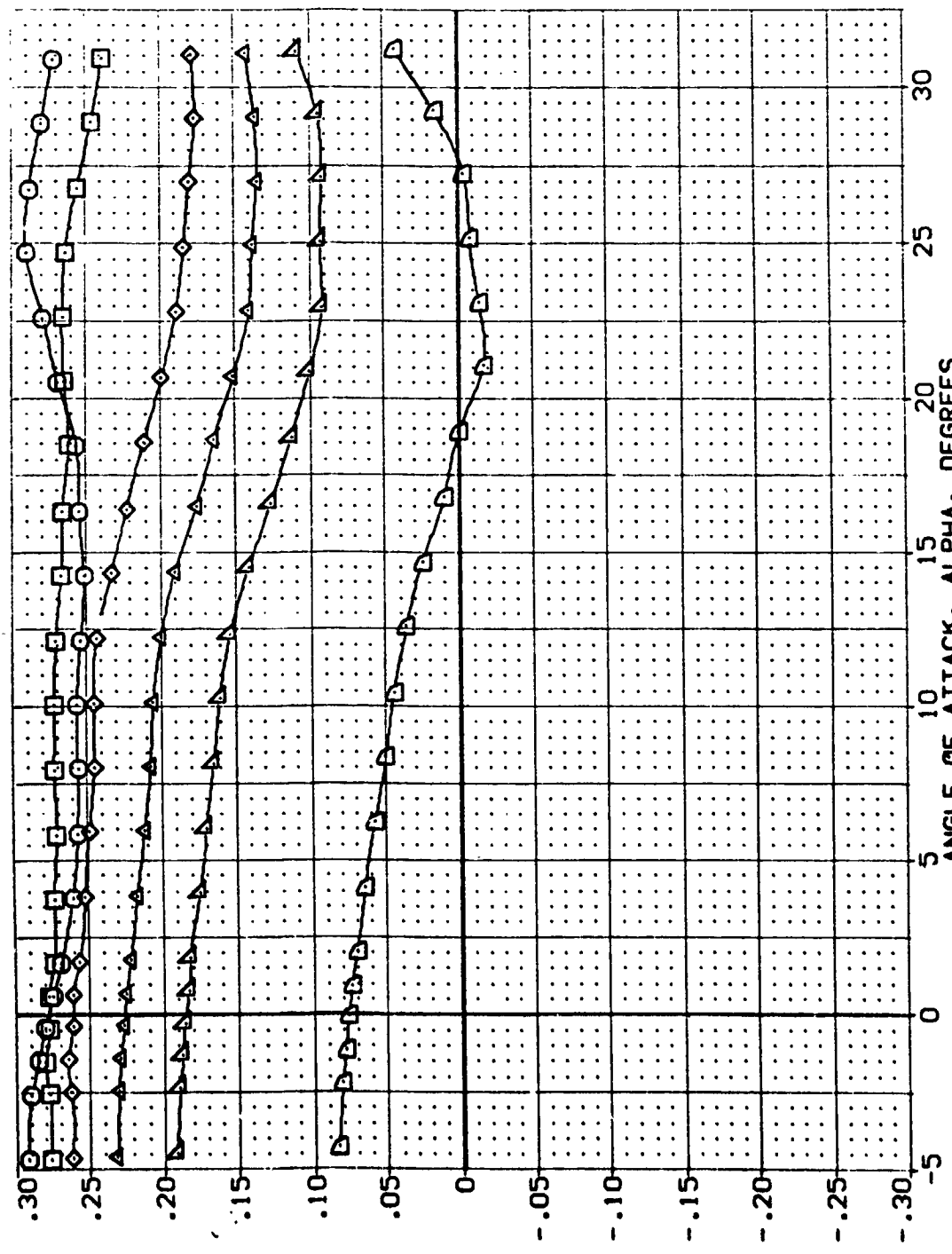


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B02011)	0A628 B26C9G1SMT8
(B02012)	0A628 B26C9G1SMT8
(B02013)	0A628 B26C9G1SMT8
(B02014)	0A628 B26C9G1SMT8
(B02015)	0A628 B26C9G1SMT8
(B02020)	0A628 B26C9G1SMT8

ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
-40.000	.178	25.000	-12.000	SREF 4.4119 SQ.FT.
-30.000	.178	25.000	-12.000	LREF 19.2299 INCHES
-20.000	.178	25.000	-12.000	BREF 37.9359 INCHES
-15.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
-10.000	.178	25.000	-12.000	YMRP 15.0000 INCHES
.000	.178	25.000	-12.000	ZMRP 15.1875 INCHES
				SCALE .0405

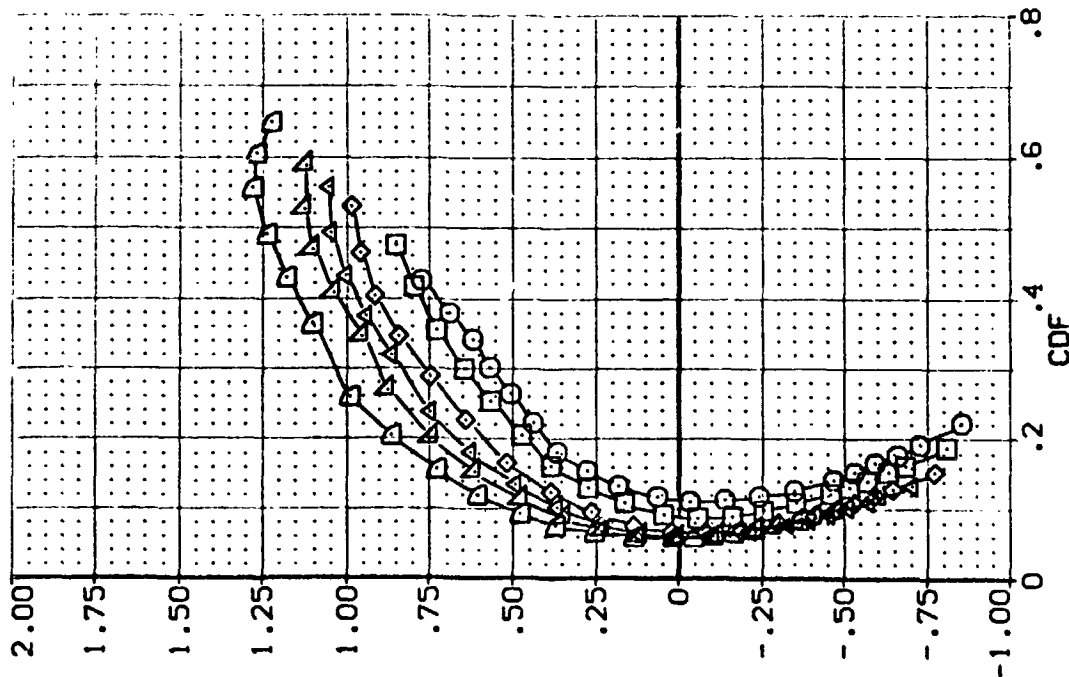
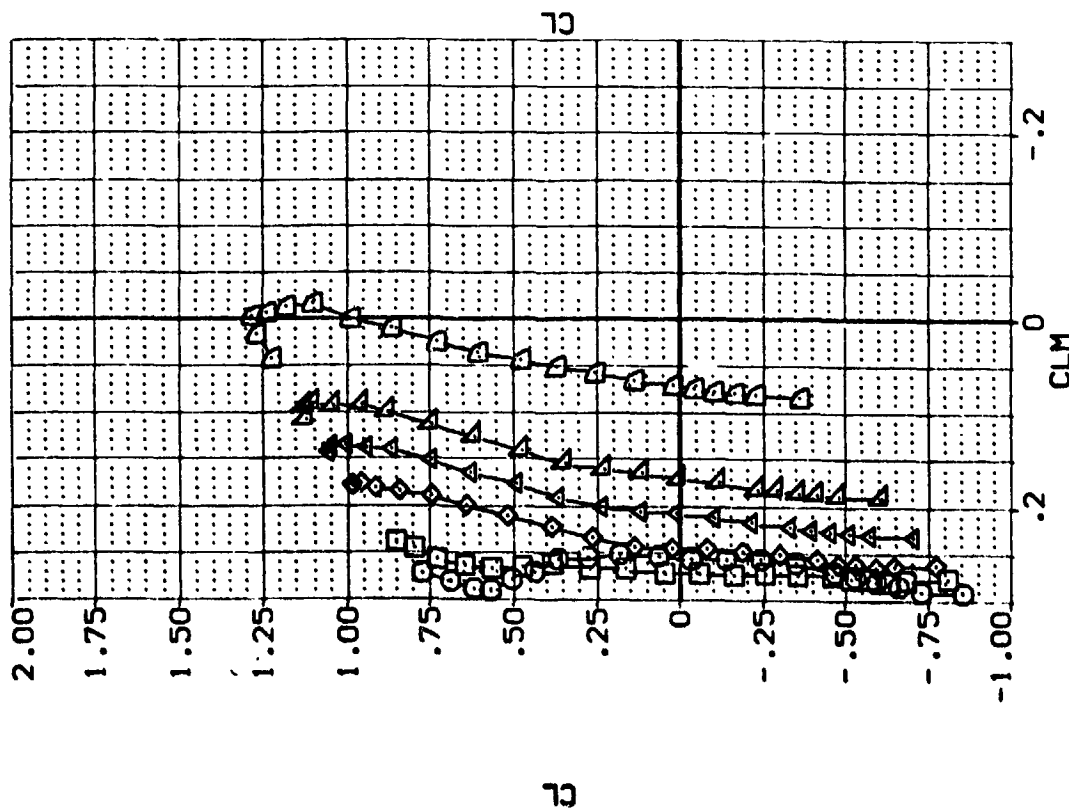


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BDFLAP	REFERENCE INFORMATION
(B02011)	0A628 B26C9G SMTFB VI SE28V65X9	-40.000	.178	25.000	-12.000	SREF 4.4119 50.000
(B02012)	0A628 B26C9G SMTFB VI SE28V65X9	-30.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(B02013)	0A628 B26C9G SMTFB VI SE28V65X9	-20.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(B02014)	0A628 B26C9G SMTFB VI SE28V65X9	-15.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(B02015)	0A628 B26C9G SMTFB VI SE28V65X9	-10.000	.178	25.000	-12.000	ZMRP .0000 INCHES
(B02020)	0A628 B26C9G SMTFB VI SE28V65X9	.000	.178	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

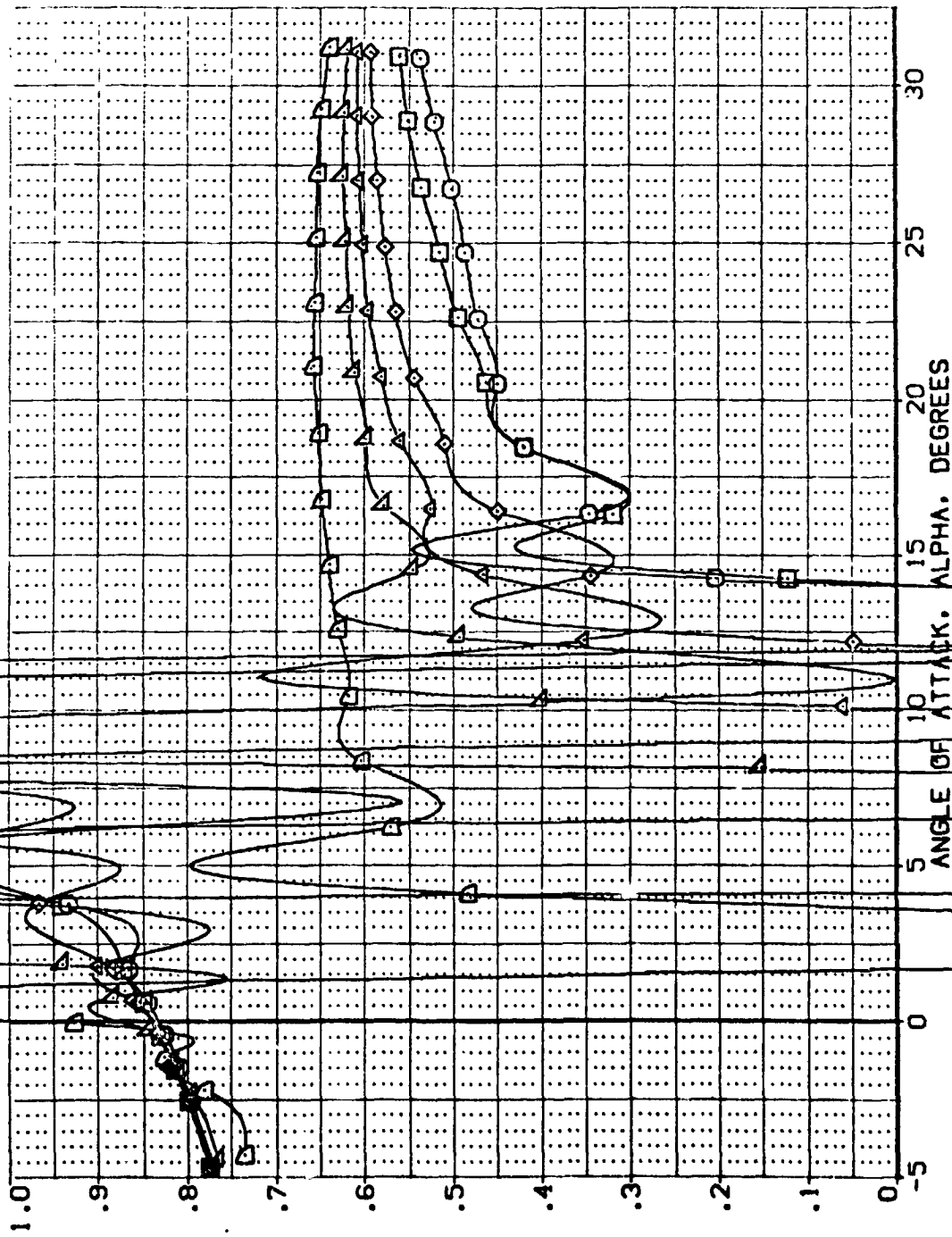


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BDFLAP	REFERENCE INFORMATION
(802011)	0A528 B26C9G1547F8 V116E28VBR5X9	-40.000	.178	25.000	-12.000	SREF 4.4119 SQ.FT.
(802012)	0A528 B26C9G1547F8 V116E28VBR5X9	-20.000	.178	25.000	-12.000	LREF 19.2299 INCHES
(802013)	0A528 B26C9G1547F8 V116E28VBR5X9	-20.000	.178	25.000	-12.000	BREF 37.9359 INCHES
(802014)	0A528 B26C9G1547F8 V116E28VBR5X9	-15.000	.178	25.000	-12.000	XMRP 43.5974 INCHES
(802015)	0A528 B26C9G1547F8 V116E28VBR5X9	-10.000	.178	25.000	-12.000	YMRP .0000 INCHES
(802020)	0A528 B26C9G1547F8 V116E28VBR5X9	.000	.178	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

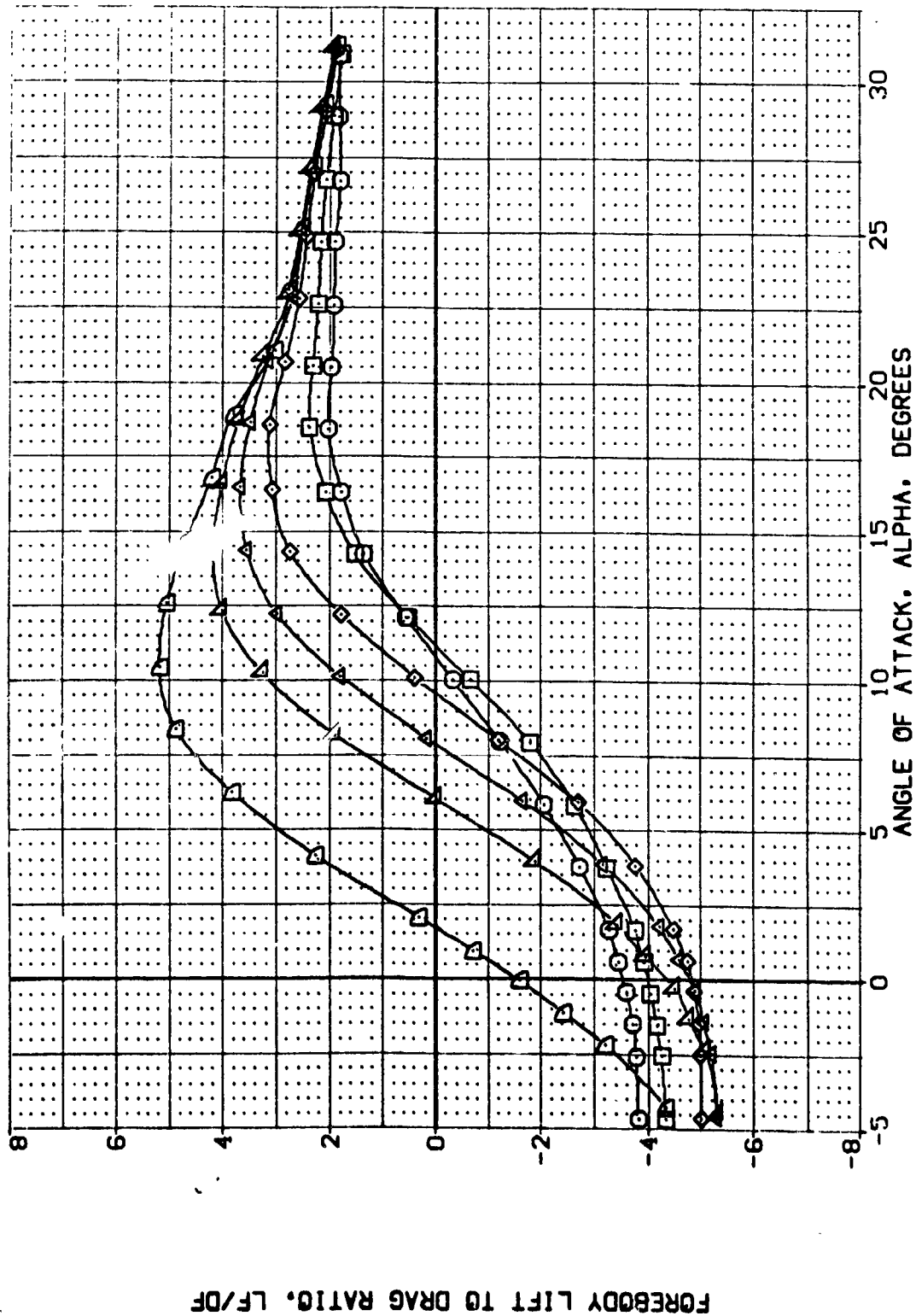


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(A)MACH = .20

0A62B B26C9G15M7F8 W116E28V8R5X9

(1DZ011)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	SREF	REFERENCE INFORMATION
0	.000		.200 BETA	.000	DELTON	1DZ011	-30.000	4.4119	SO.FT.
			-12.000 AILRON	.000	DELTON	1DZ012	-15.000	19.2299	INCHES
			.000 SPOBRK	25.000	DELTON	1DZ013	-5.000	37.9359	INCHES
			.178		DELTON	1DZ014	5.000	43.5974	INCHES
					DELTON	1DZ015	15.000	0.000	INCHES
					DELTON	1DZ016	15.000	15.1875	INCHES
					DELTON	1DZ017	15.000	.0405	SCALE
					DELTON	1DZ018	15.000		
					DELTON	1DZ019	15.000		
					DELTON	1DZ020	15.000		

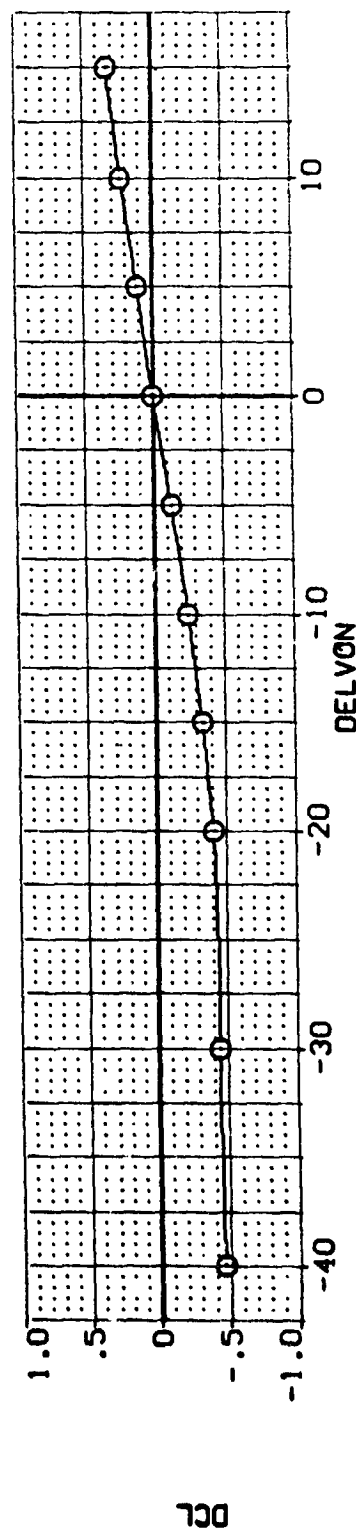
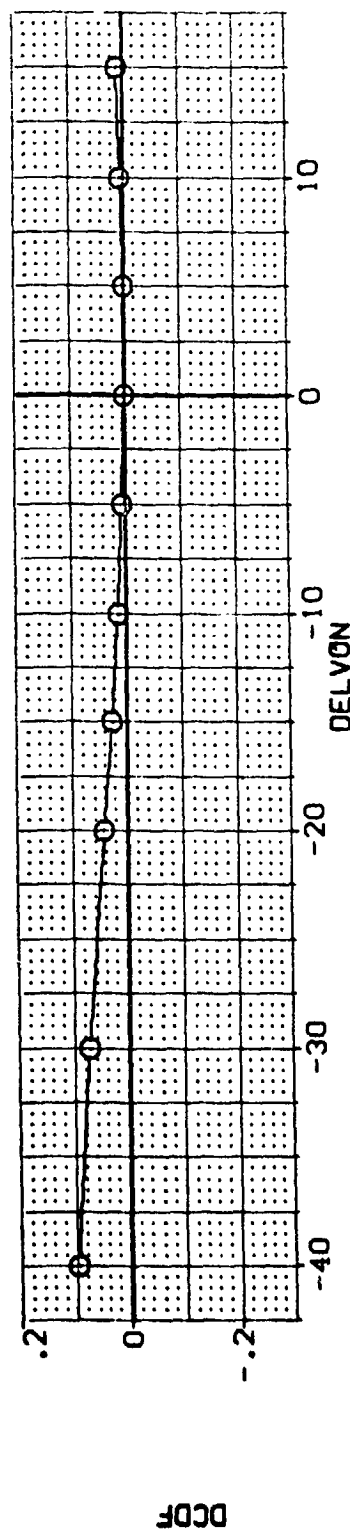
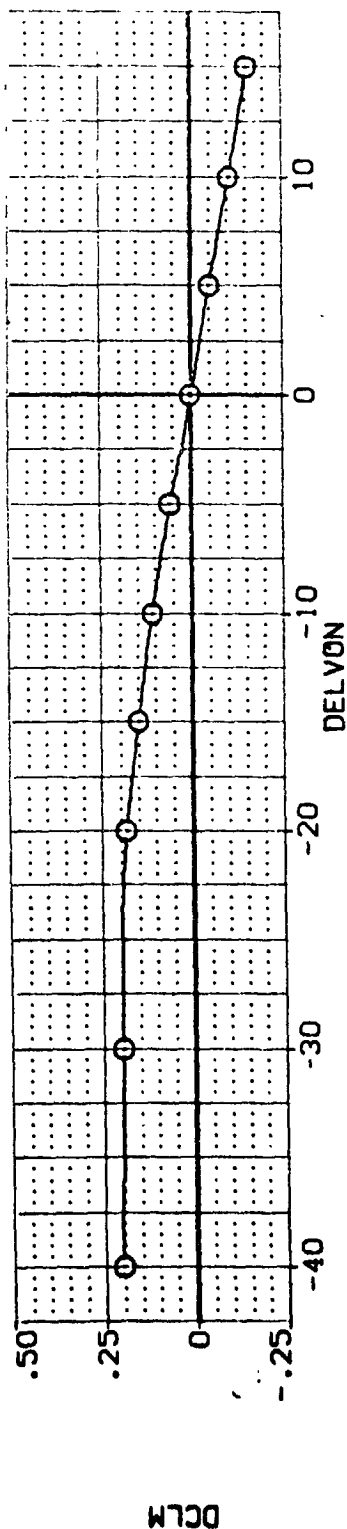


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND  $H/BW = 0.178$

0A628 826C9G15M7F8 W116E28V8R5X9 (10Z011)

SYMBOL	ALPHA	MACH	BOFLAP	RUDDER	H/BW	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	5.000	.200	.000	.000	.178	BETA AILRON SPOBRK	DELTON DELTON DELTON	4.4119 19.2293 37.9359 43.5974 43.0000 15.1875 SCALE
							DELTON DELTON DELTON	50. FT. INCHES INCHES INCHES INCHES INCHES SCALE

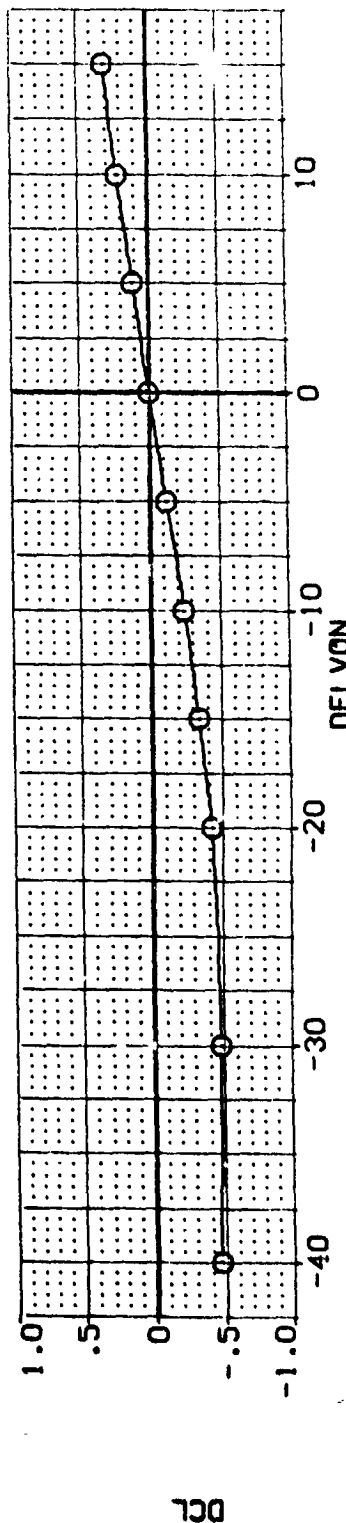
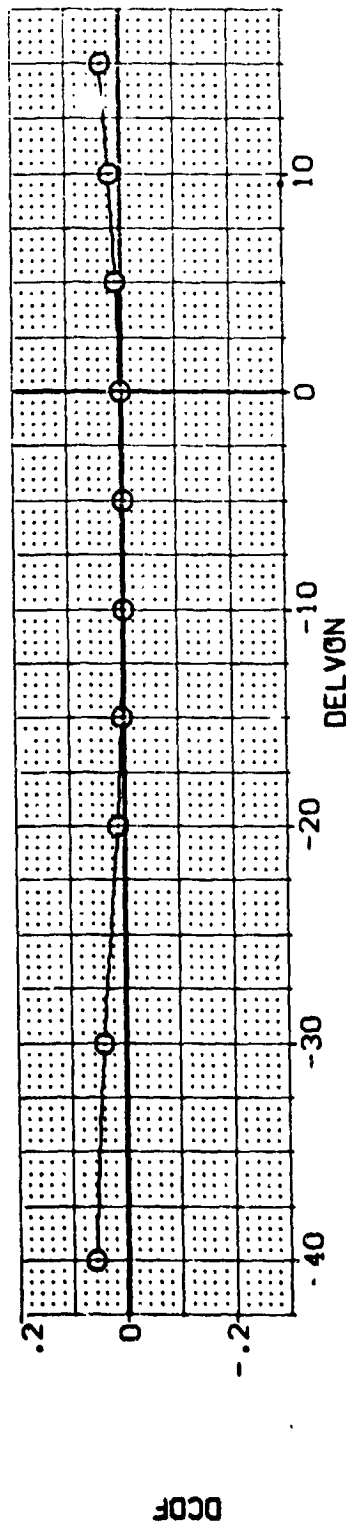
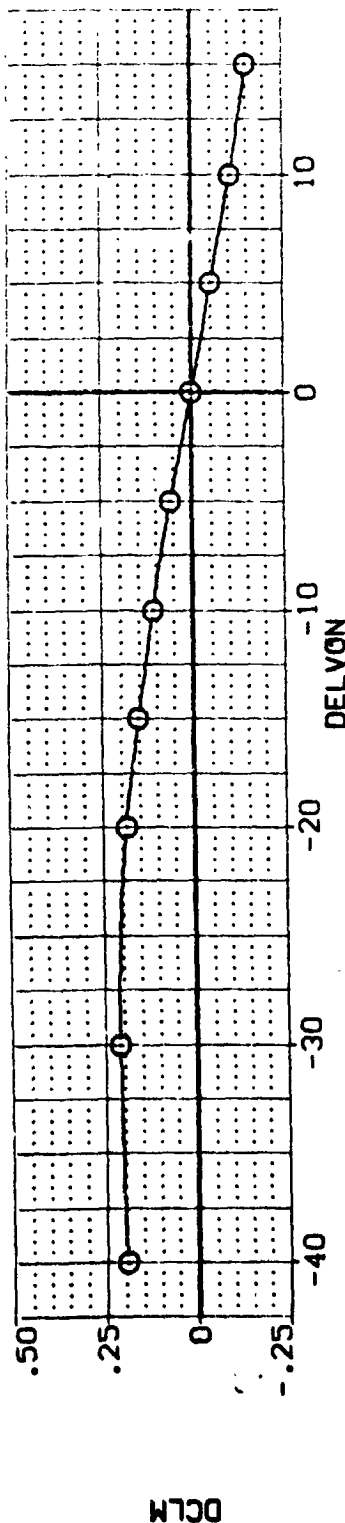


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ011)

SYMBOL	ALPHA	WACH	BOFLAP	RUDER	H/BW	PARAMETRIC VALUES	.000	DATASET	DELTON	DATASET	DELTON	SREF	REFERENCE INFORMATION
O	10.000					BETA		1DZ011	-40.000	1DZ012	-30.000	LREF	4.4119
						AILRON		1DZ013	-20.000	1DZ014	-15.000	BREF	19.2299
						SPOBRK	25.000	1DZ015	-10.000	1DZ016	-5.000	XREF	37.9359
							.178	1DZ017	10.000	1DZ018	15.000	YREF	43.5974
								1DZ019		1DZ020		ZREF	0.000
								1DZ021		1DZ022		SCALE	15.1875
								1DZ023		1DZ024		SCALE	.0405

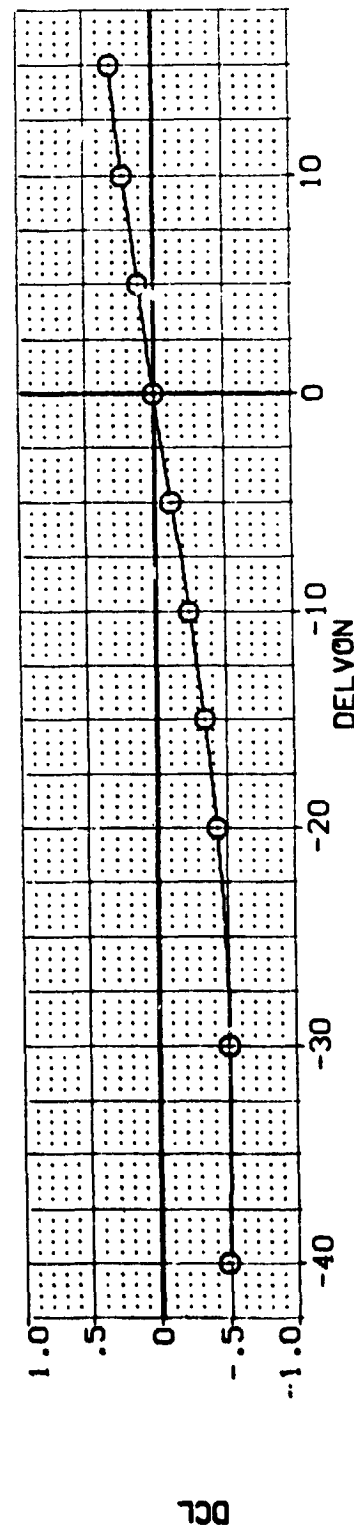
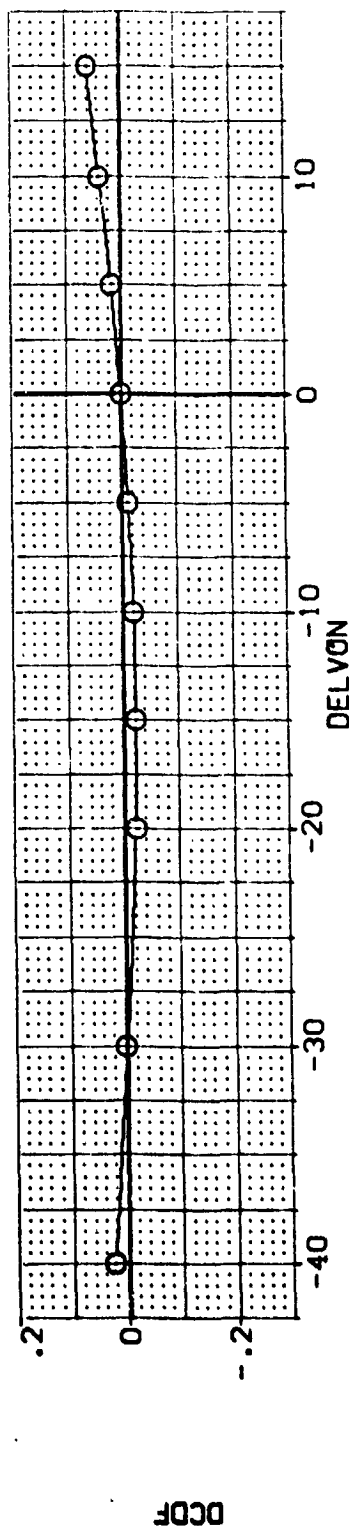
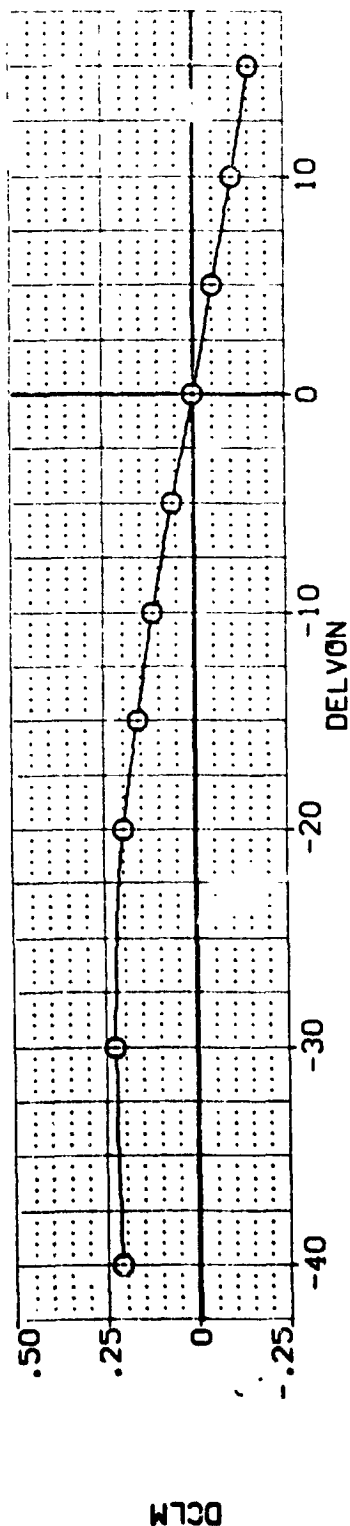


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(10Z011)

0A628 B26C9G15M7F8 W116E28V8R5X9

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BETA	AILRON	SPDRK	H/BW	DELTON	DELTON	SREF	SO.FT.
O	15.000		.200	-12.000	.000	.000	10.000	-30.000	LREF	19.2299
		BOFLAP			.000	.000	-40.000	-15.000	BREF	37.9359
		RUDER			25.000	.000	-20.000	-5.000	XMRP	43.5974
		H/BW			.178	.000	-10.000	5.000	YMRP	0.000
						.000	10.000	15.000	ZMRP	15.1875
									SCALE	.0405
										INCHES
										INCHES
										INCHES
										INCHES
										SCALE

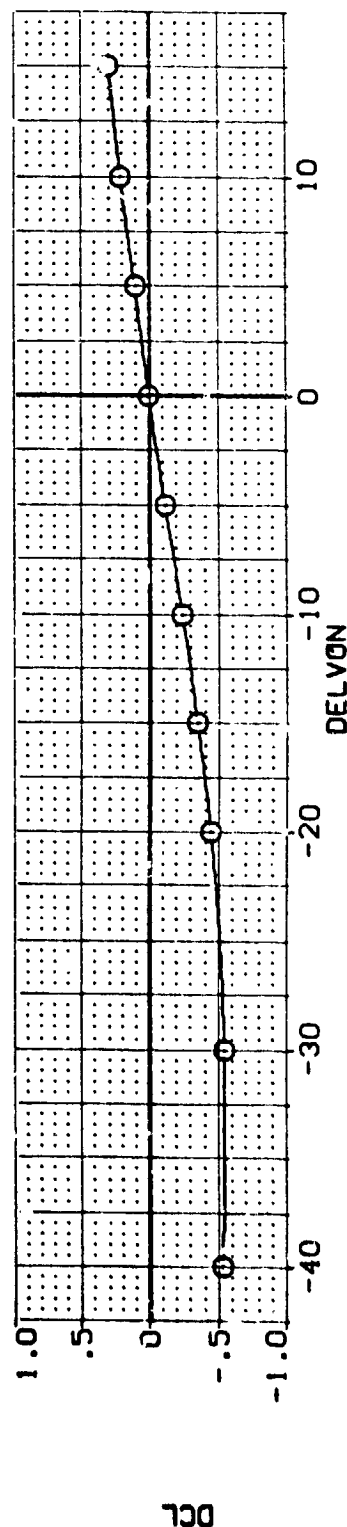
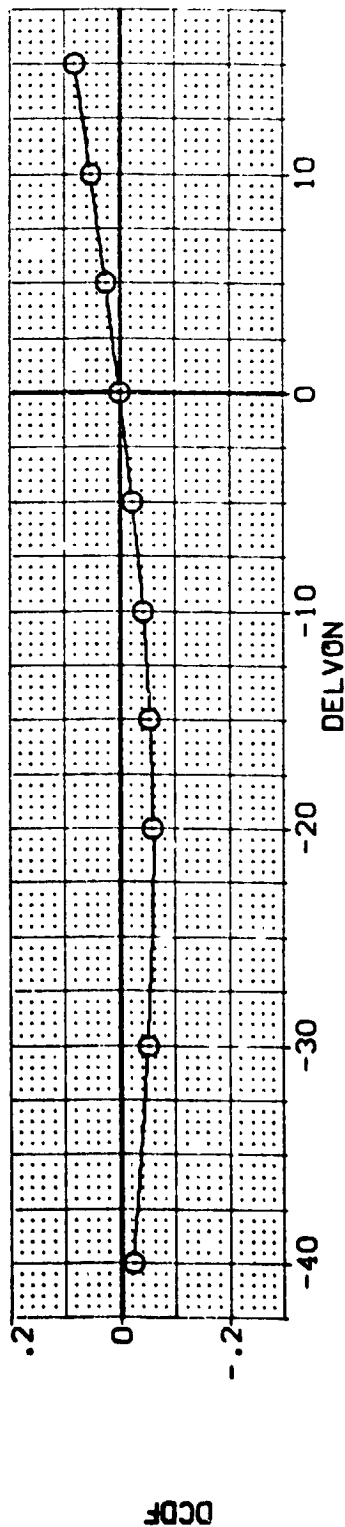
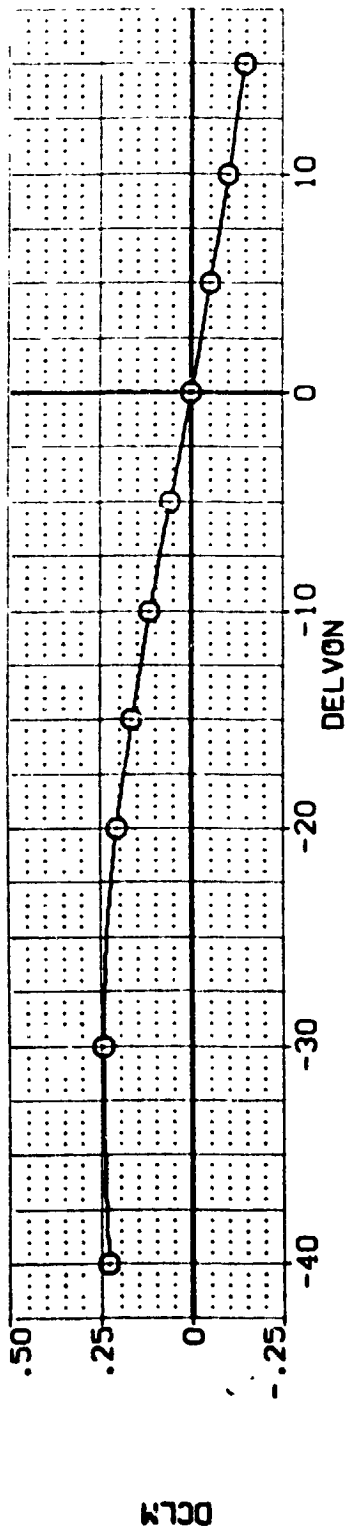


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(10Z011)

0A628 B26C9G15M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DELTON	REFERENCE INFORMATION
O	20.000	.200	BETA	.000	10.000	15.000	SO. IT.
		-12.000	AILRON	.000	-40.000	30.000	INCHES
		.000	SPOBRK	25.000	-20.000	-15.000	INCHES
		.178		IDZ018	-10.000	-5.000	INCHES
				IDZ020	.000	0.000	INCHES
				IDZ019	10.000	15.000	INCHES
				IDZ017	10.000	15.000	SCALE
							SCALE

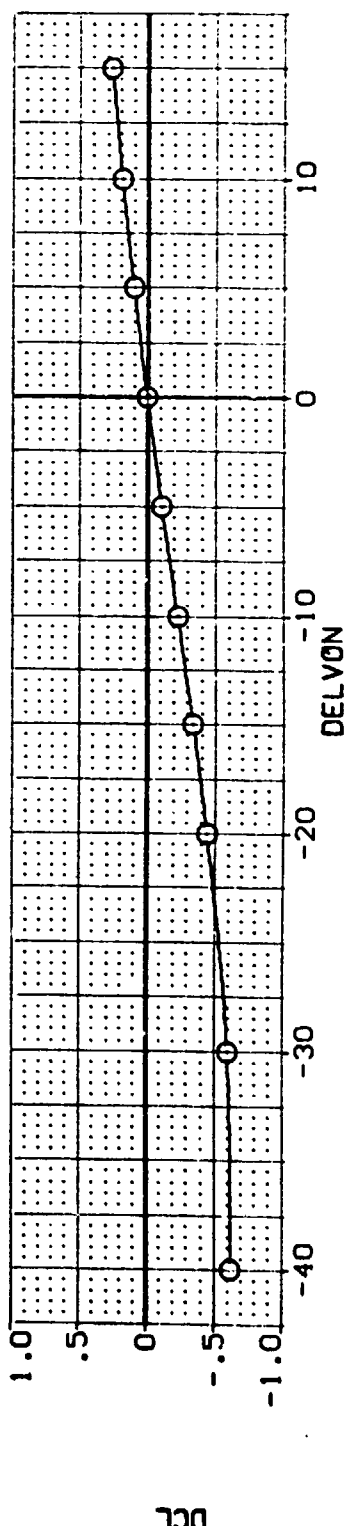
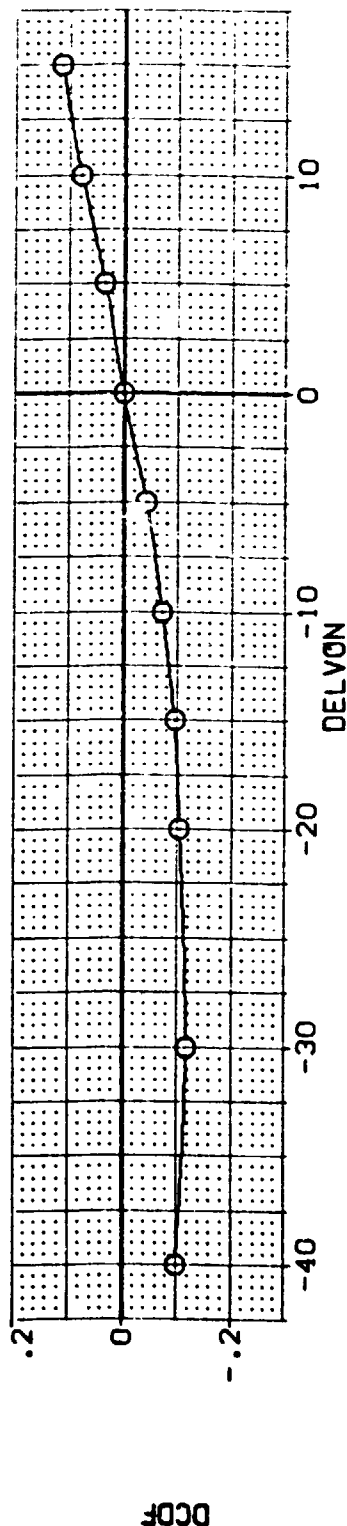
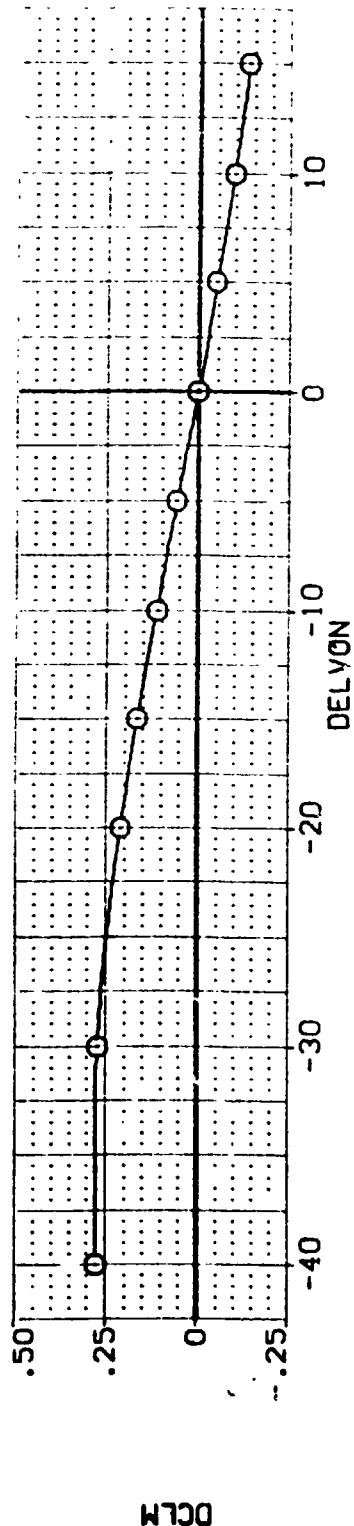


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

0A62B B26C9G15M7F8 W116E28V8R5X9 (1DZ011)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELVON	SREF	REFERENCE INFORMATION
O	25.000	BDF LAR	BETA	.000	IDZ011	-40.000	19.2299	SO. FT.
		RUDDER	AILRON	25.000	IDZ013	-20.000	37.9359	INCHES
		H/BW	SPOBRK	.178	IDZ014	-15.000	43.5974	INCHES
					IDZ015	-10.000	15.0000	INCHES
					IDZ016	10.000	15.1875	INCHES
					IDZ017	15.000	15.0405	SCALE

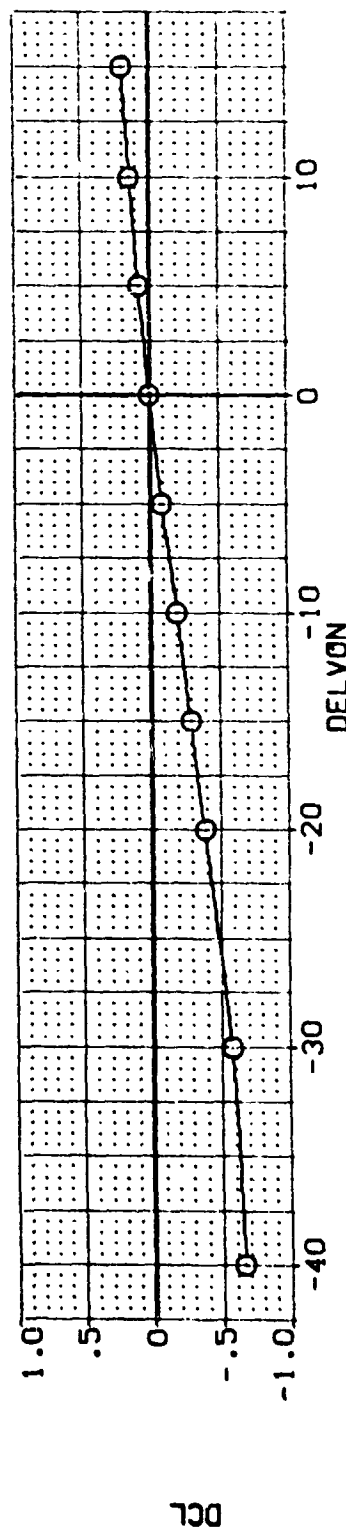
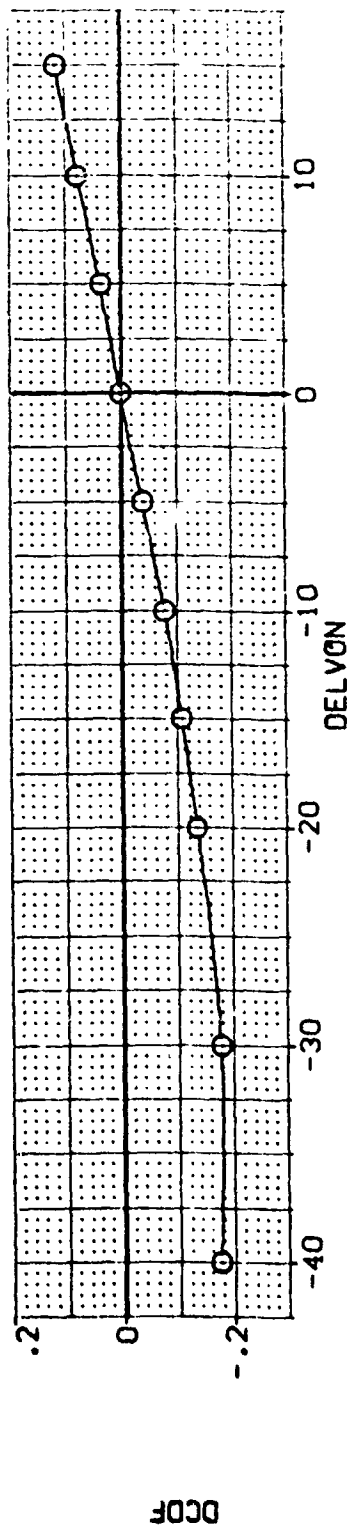
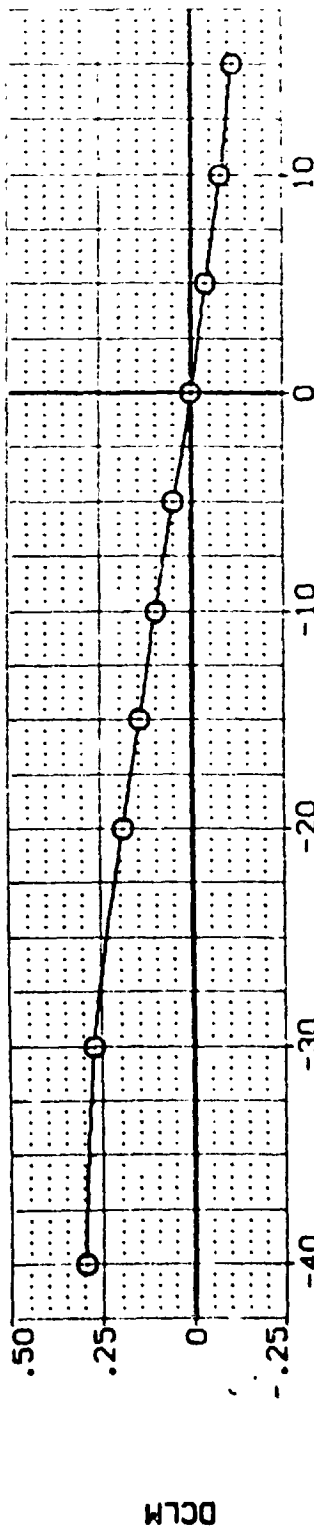


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178



0A62B B26C9G15M7F8 W116E28V8R5X9

(1DZ011)

SYMBOL	ALPHA	ACH	BOFLAP	RUDDER	H/BW	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	30.000	.200	.000	.000	.178	BETA AILRON SPOBRK	DELTON IDZ011 IDZ013 IDZ015 IDZ020 IDZ018	SO.FT. INCHES INCHES INCHES INCHES INCHES SCALE
							DELTON IDZ012 IDZ014 IDZ016 IDZ019 IDZ017	SREF LREF SPREF XREF YREF ZREF SCALE
								4.4119 19.2259 37.9359 43.5974 15.0000 15.1875 15.0000

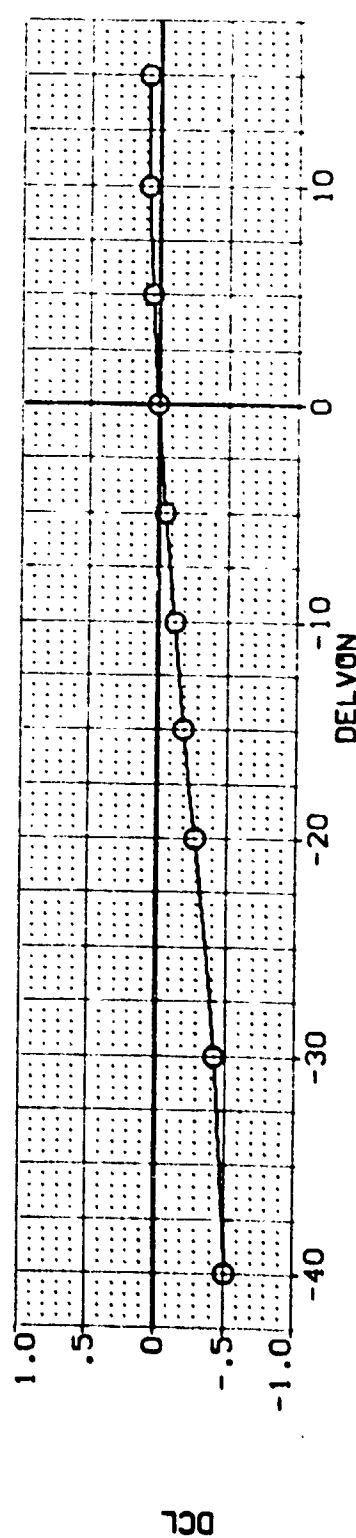
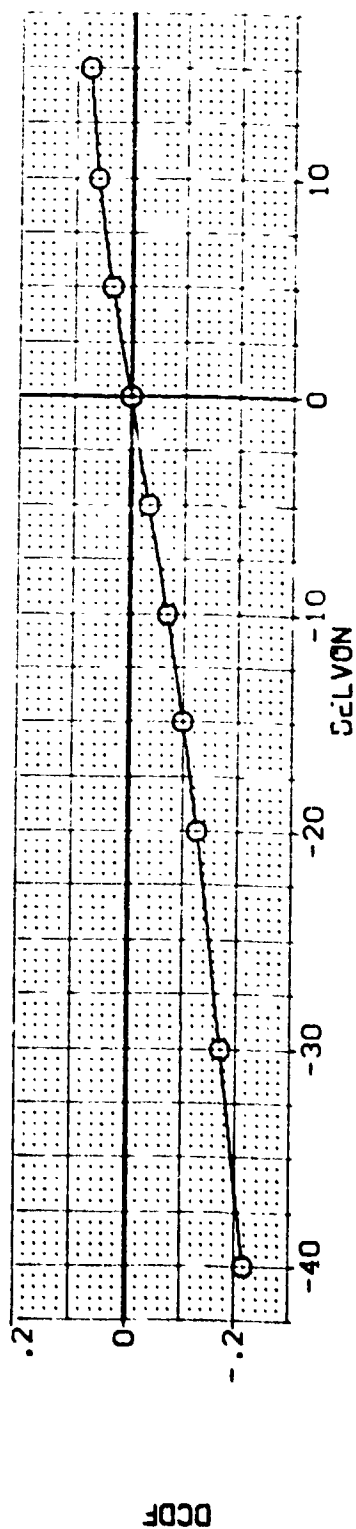
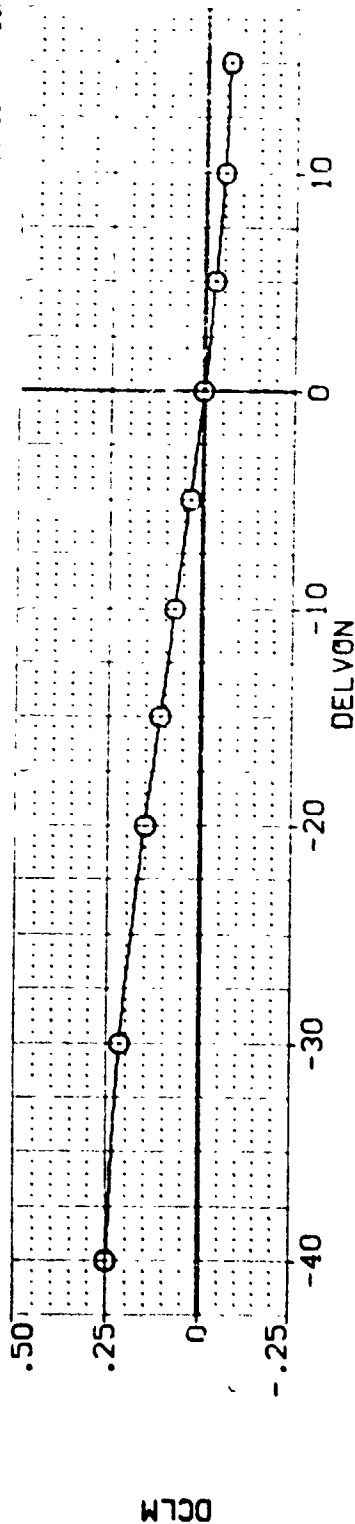


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

GA

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES
0	.000		BETA
		BOFLAP	-12.000
		RUDDER	.000
		W/BV	.179
			SPDRBK
			AILRDN

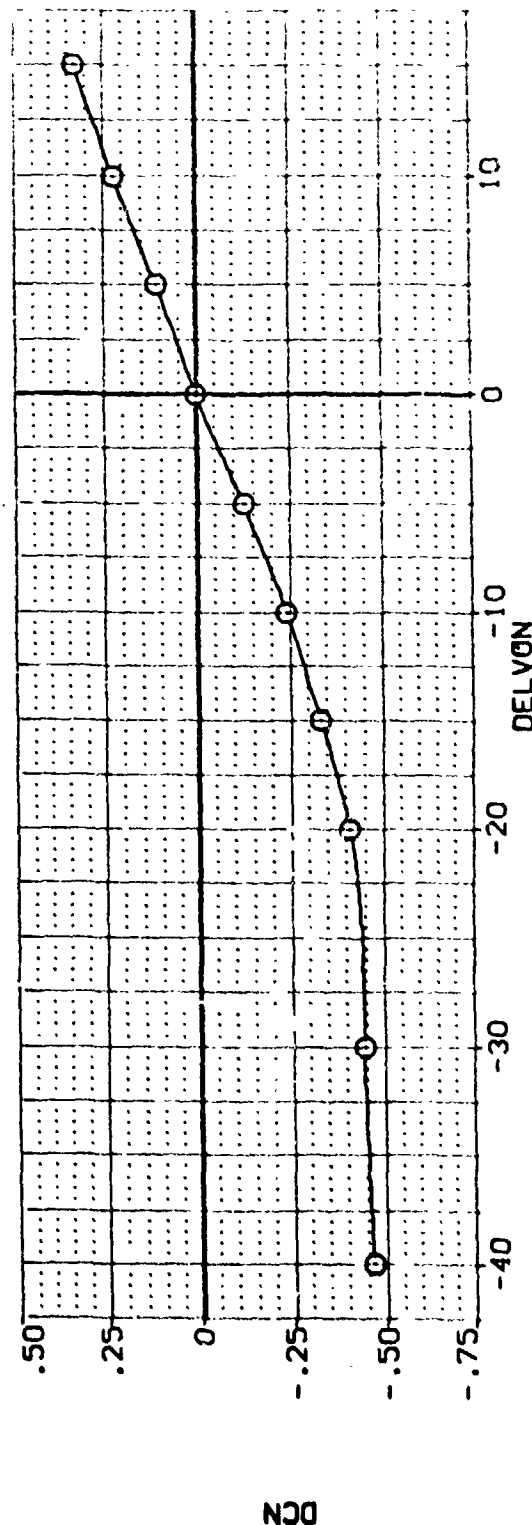
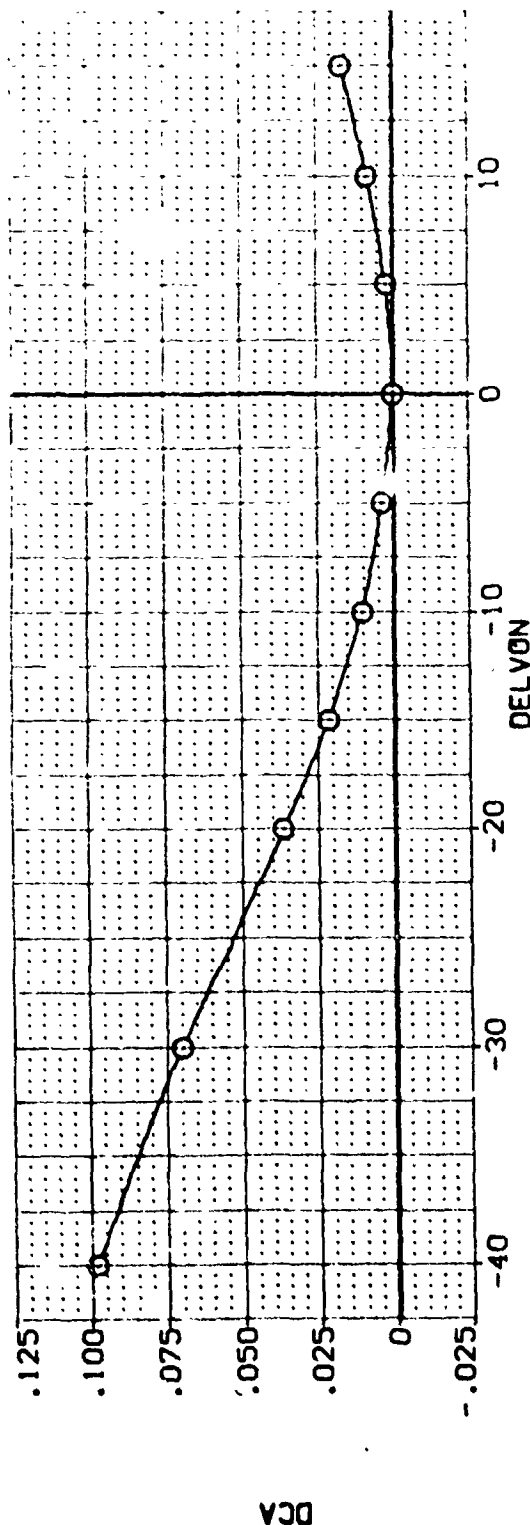
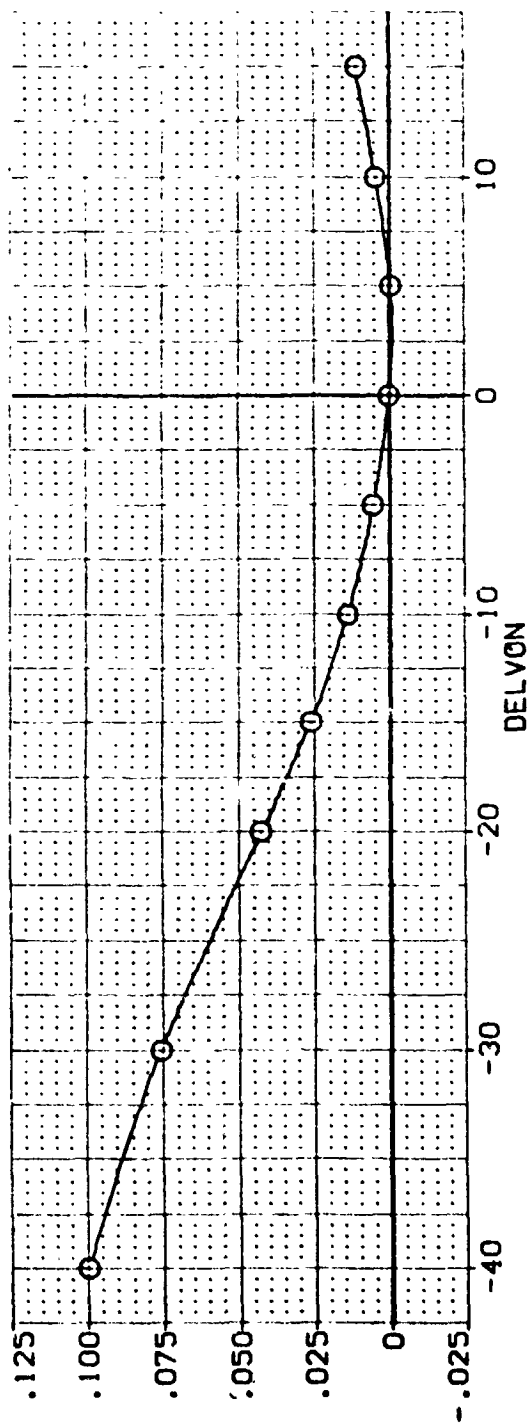


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

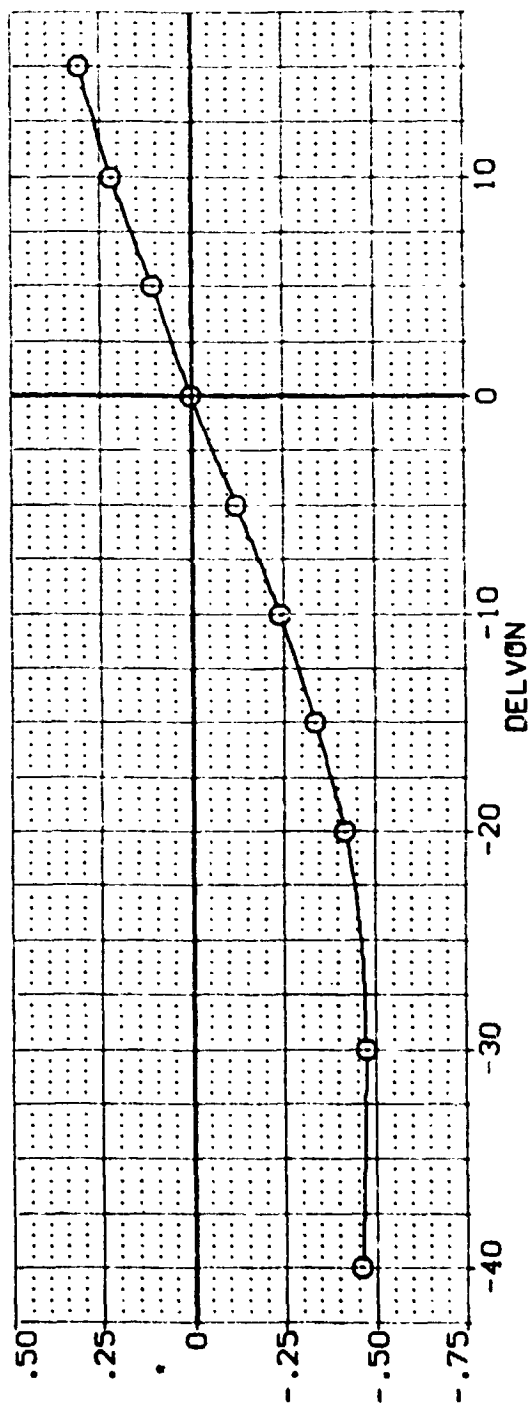
**SYMBOL** **O**

0A62B B26C9G15M7F8 W116E28V8R5X9

(10Z01)

[illegible]

**VCD**



**NOO**

FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(10Z011)

0A628 B26C9G15M7F8 W116E28V0R5X9

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BOFLAP	BETA	DELTON	DATASET	DELTON	SREF	SO.FT.	INCHES
O	10.000	.200	.000	.178	.000	10Z011	-30.000	4.4119	19.2299	INCHES
					.000	10Z012	-15.000	37.9359	43.5974	INCHES
					25.000	10Z013	-5.000	15.1875	15.1875	INCHES
						10Z014	15.000	15.1875	15.1875	INCHES
						10Z015	15.000	15.1875	15.1875	INCHES
						10Z016	15.000	15.1875	15.1875	INCHES
						10Z017	15.000	15.1875	15.1875	INCHES
						10Z018	15.000	15.1875	15.1875	INCHES
						10Z019	15.000	15.1875	15.1875	INCHES
						10Z020	15.000	15.1875	15.1875	INCHES
						10Z021	15.000	15.1875	15.1875	INCHES
						10Z022	15.000	15.1875	15.1875	INCHES
						10Z023	15.000	15.1875	15.1875	INCHES
						10Z024	15.000	15.1875	15.1875	INCHES
						10Z025	15.000	15.1875	15.1875	INCHES
						10Z026	15.000	15.1875	15.1875	INCHES
						10Z027	15.000	15.1875	15.1875	INCHES
						10Z028	15.000	15.1875	15.1875	INCHES
						10Z029	15.000	15.1875	15.1875	INCHES
						10Z030	15.000	15.1875	15.1875	INCHES
						10Z031	15.000	15.1875	15.1875	INCHES
						10Z032	15.000	15.1875	15.1875	INCHES
						10Z033	15.000	15.1875	15.1875	INCHES
						10Z034	15.000	15.1875	15.1875	INCHES
						10Z035	15.000	15.1875	15.1875	INCHES
						10Z036	15.000	15.1875	15.1875	INCHES
						10Z037	15.000	15.1875	15.1875	INCHES
						10Z038	15.000	15.1875	15.1875	INCHES
						10Z039	15.000	15.1875	15.1875	INCHES
						10Z040	15.000	15.1875	15.1875	INCHES
						10Z041	15.000	15.1875	15.1875	INCHES
						10Z042	15.000	15.1875	15.1875	INCHES
						10Z043	15.000	15.1875	15.1875	INCHES
						10Z044	15.000	15.1875	15.1875	INCHES
						10Z045	15.000	15.1875	15.1875	INCHES
						10Z046	15.000	15.1875	15.1875	INCHES
						10Z047	15.000	15.1875	15.1875	INCHES
						10Z048	15.000	15.1875	15.1875	INCHES
						10Z049	15.000	15.1875	15.1875	INCHES
						10Z050	15.000	15.1875	15.1875	INCHES
						10Z051	15.000	15.1875	15.1875	INCHES
						10Z052	15.000	15.1875	15.1875	INCHES
						10Z053	15.000	15.1875	15.1875	INCHES
						10Z054	15.000	15.1875	15.1875	INCHES
						10Z055	15.000	15.1875	15.1875	INCHES
						10Z056	15.000	15.1875	15.1875	INCHES
						10Z057	15.000	15.1875	15.1875	INCHES
						10Z058	15.000	15.1875	15.1875	INCHES
						10Z059	15.000	15.1875	15.1875	INCHES
						10Z060	15.000	15.1875	15.1875	INCHES
						10Z061	15.000	15.1875	15.1875	INCHES
						10Z062	15.000	15.1875	15.1875	INCHES
						10Z063	15.000	15.1875	15.1875	INCHES
						10Z064	15.000	15.1875	15.1875	INCHES
						10Z065	15.000	15.1875	15.1875	INCHES
						10Z066	15.000	15.1875	15.1875	INCHES
						10Z067	15.000	15.1875	15.1875	INCHES
						10Z068	15.000	15.1875	15.1875	INCHES
						10Z069	15.000	15.1875	15.1875	INCHES
						10Z070	15.000	15.1875	15.1875	INCHES
						10Z071	15.000	15.1875	15.1875	INCHES
						10Z072	15.000	15.1875	15.1875	INCHES
						10Z073	15.000	15.1875	15.1875	INCHES
						10Z074	15.000	15.1875	15.1875	INCHES
						10Z075	15.000	15.1875	15.1875	INCHES
						10Z076	15.000	15.1875	15.1875	INCHES
						10Z077	15.000	15.1875	15.1875	INCHES
						10Z078	15.000	15.1875	15.1875	INCHES
						10Z079	15.000	15.1875	15.1875	INCHES
						10Z080	15.000	15.1875	15.1875	INCHES
						10Z081	15.000	15.1875	15.1875	INCHES
						10Z082	15.000	15.1875	15.1875	INCHES
						10Z083	15.000	15.1875	15.1875	INCHES
						10Z084	15.000	15.1875	15.1875	INCHES
						10Z085	15.000	15.1875	15.1875	INCHES
						10Z086	15.000	15.1875	15.1875	INCHES
						10Z087	15.000	15.1875	15.1875	INCHES
						10Z088	15.000	15.1875	15.1875	INCHES
						10Z089	15.000	15.1875	15.1875	INCHES
						10Z090	15.000	15.1875	15.1875	INCHES
						10Z091	15.000	15.1875	15.1875	INCHES
						10Z092	15.000	15.1875	15.1875	INCHES
						10Z093	15.000	15.1875	15.1875	INCHES
						10Z094	15.000	15.1875	15.1875	INCHES
						10Z095	15.000	15.1875	15.1875	INCHES
						10Z096	15.000	15.1875	15.1875	INCHES
						10Z097	15.000	15.1875	15.1875	INCHES
						10Z098	15.000	15.1875	15.1875	INCHES
						10Z099	15.000	15.1875	15.1875	INCHES
						10Z100	15.000	15.1875	15.1875	INCHES

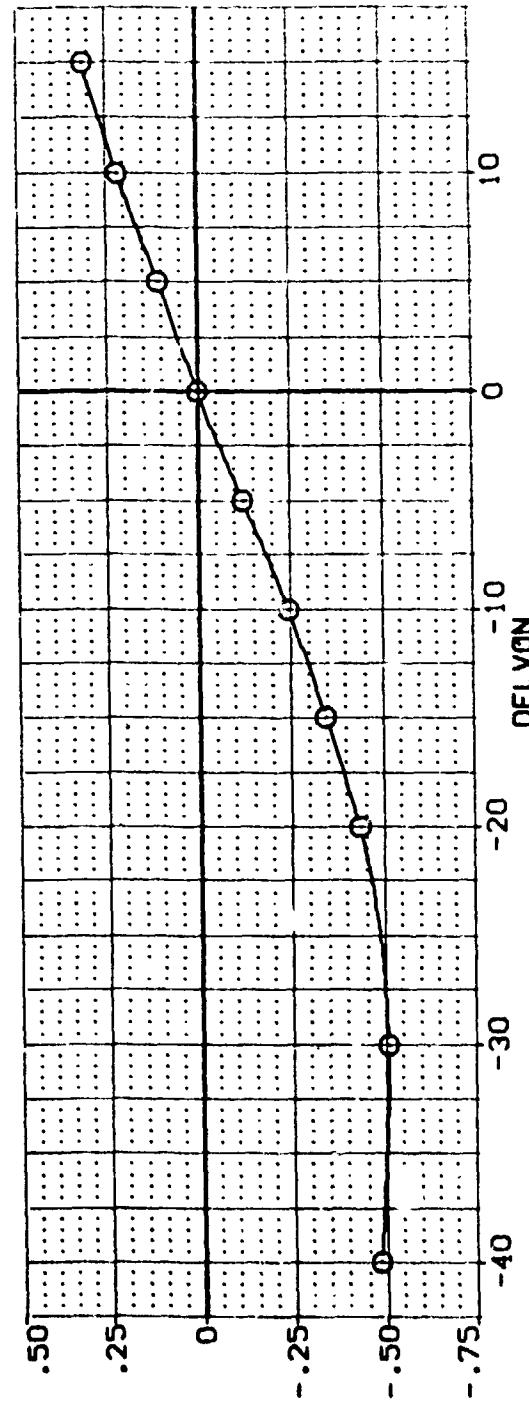
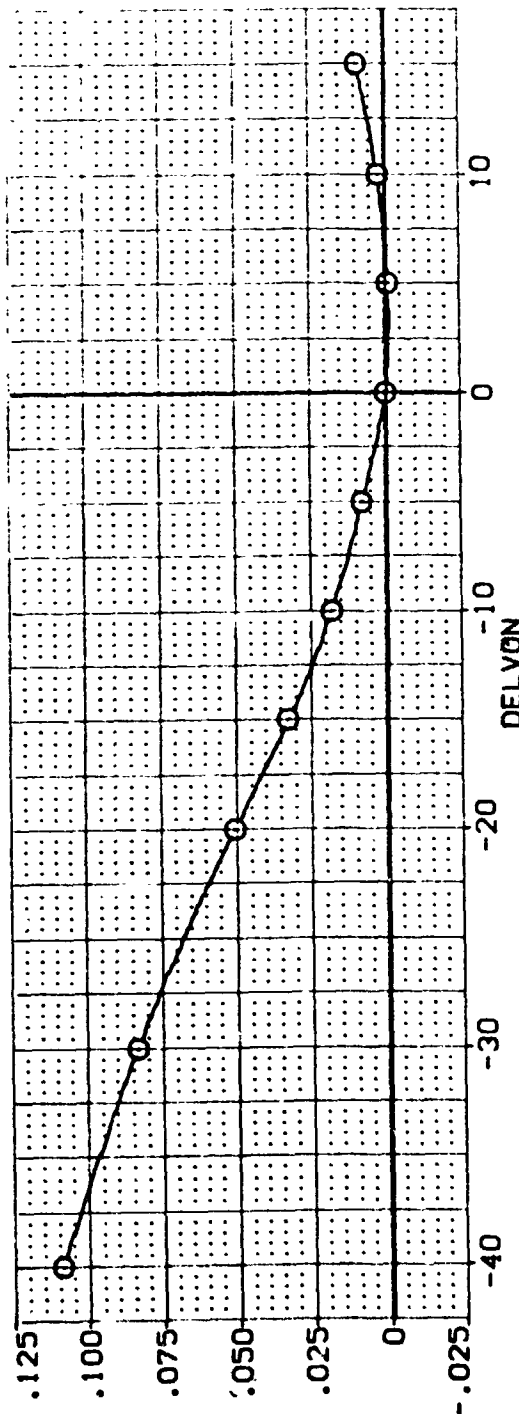


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(1DZ011)

0A628 B26C9G15M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	BDFLAP	RUDER	H/BW	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	15.000	.200	.000	.000	.178	BETA -12.000 A1LRON SPDRBK 25.000	DELTON -40.000 -20.000 -10.000 10.000	SO. FT. INCHES INCHES INCHES INCHES INCHES SCALE
							DELTON -30.000 -15.000 -5.000 15.000	4.4119 19.2299 37.9359 43.5974 .0000 15.1875 .0405
							DELTON -40.000 -20.000 -10.000 10.000	LREF BREF XMRP YMRP ZMRP SCALE
							DELTON -40.000 -20.000 -10.000 10.000	4.4119 19.2299 37.9359 43.5974 .0000 15.1875 .0405

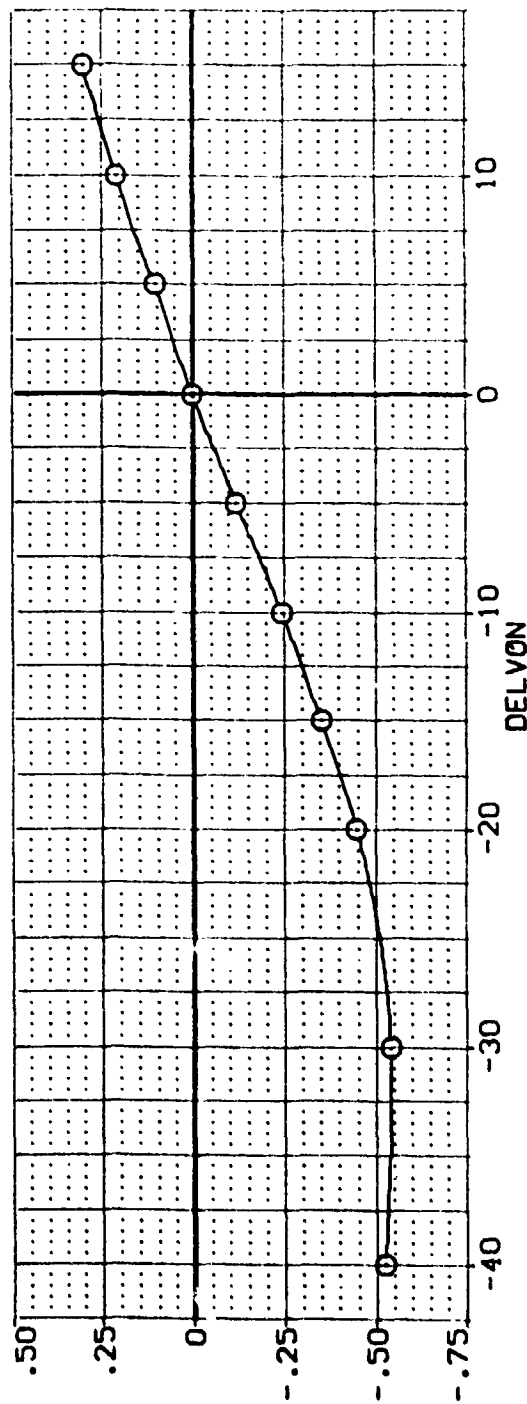
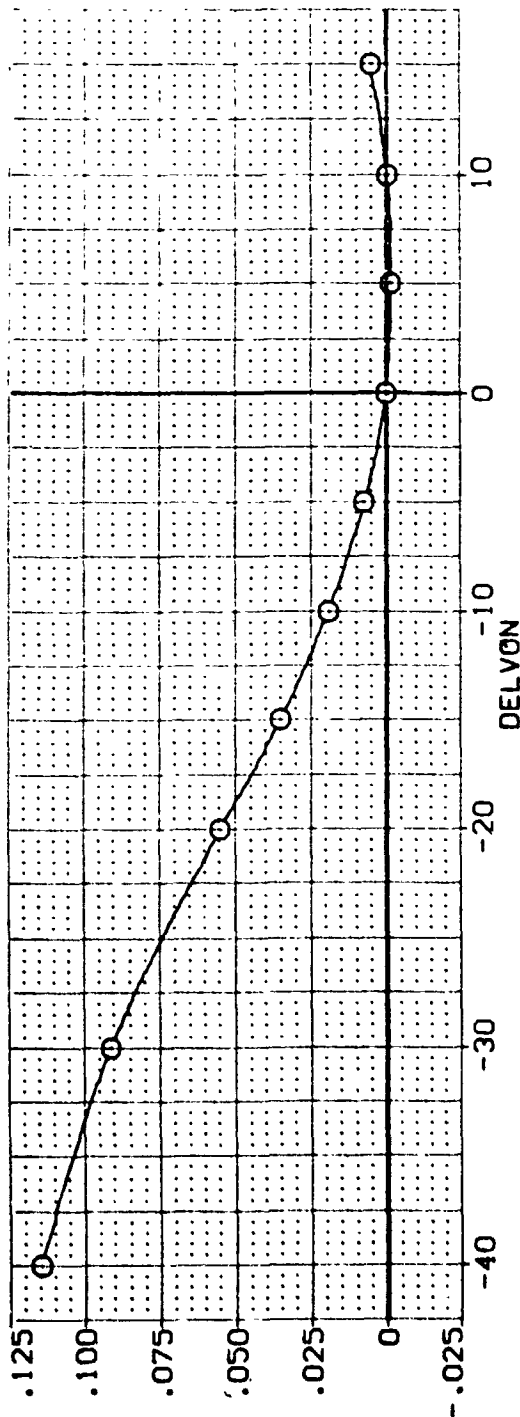


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178



(1DZ011)

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ALPHA  
25.0000

HCH

PARAMET  
.200

VALUES  
BETA

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**SOURCE**

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NOTATION  
SQ. FT.  
INCHES

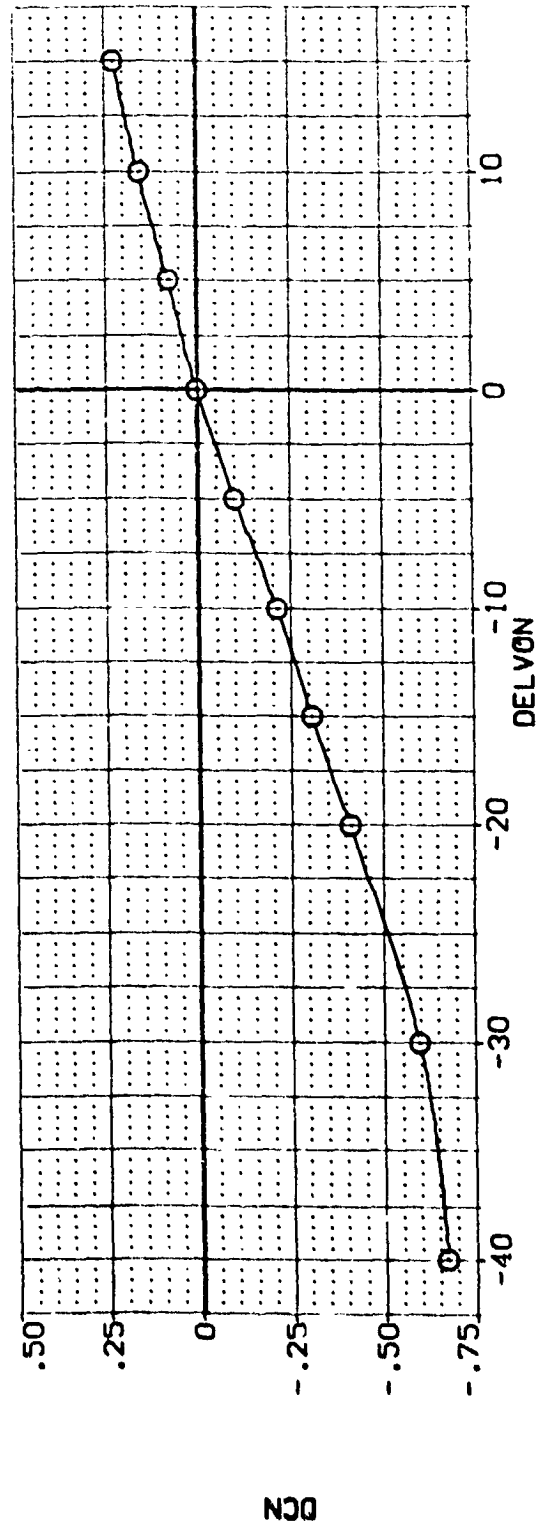
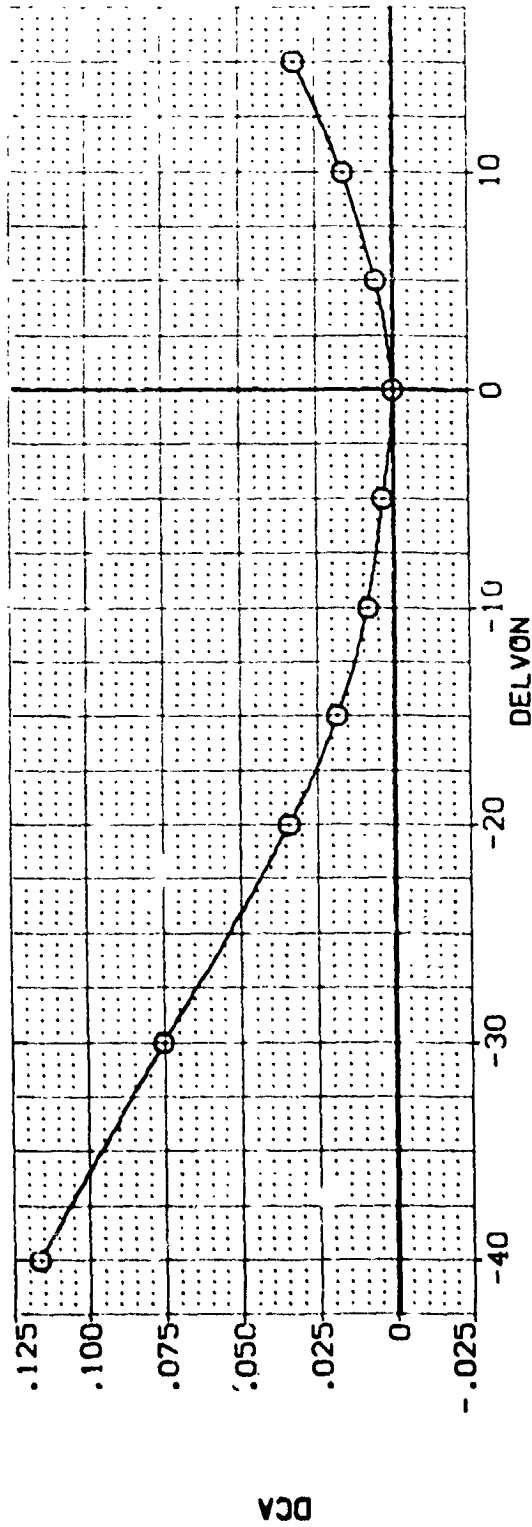


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178

(1DZ011)

0A62B B26C9G15M7F8 W116E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		MACH	BETA	AILRON	SPDRK	DELTON	DATASET	DELTON	SREF	SO. FT.	INCHES
O	30.000		.200	-12.000	.000	1DZ011	1DZ012	-30.000	4.4119	19.2298	INCHES
		BOFLAP		.000	25.000	1DZ013	1DZ014	-15.000	37.9359	43.5974	INCHES
		RUDDER		.000		1DZ015	1DZ016	-5.000	15.1875		INCHES
		H/BW		.178		1DZ017	1DZ018	15.000	15.1875		INCHES
								SCALE			SCALE

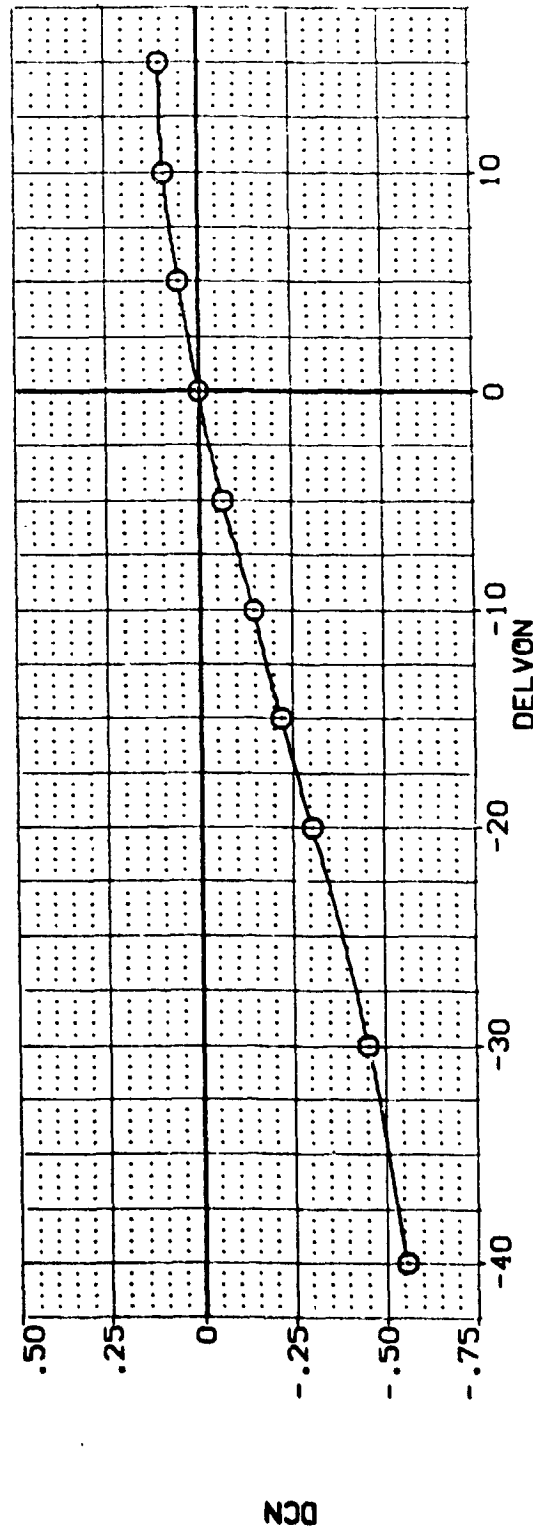
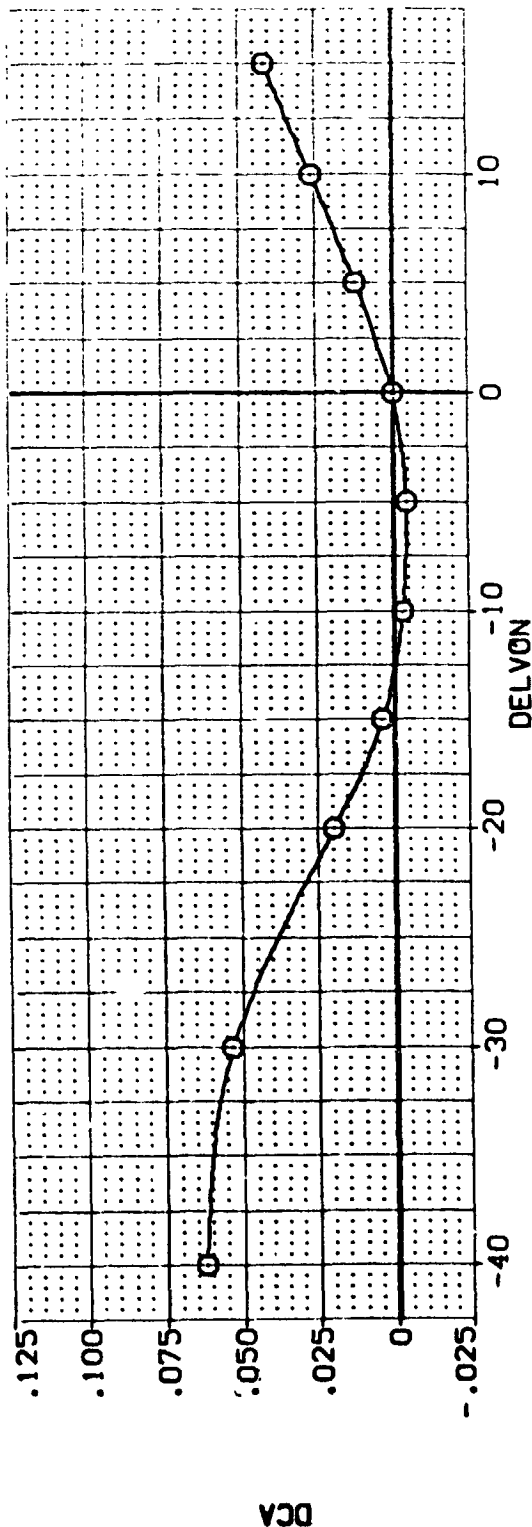


FIG 5 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.178



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORRK	BDFLAP	REFERENCE INFORMATION
(802030)	0A528 B26C961547F8 V116E28VBR5X9	-5.000	.125	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(802021)	0A528 B26C961547F8 V116E28VBR5X9	.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(802023)	0A528 B26C961547F8 V116E28VBR5X9	5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(802029)	0A528 B26C961547F8 V116E28VBR5X9	10.000	.125	25.000	-12.000	XMRP 43.5574 INCHES
(802025)	0A528 B26C961547F8 V116E28VBR5X9	15.000	.125	25.000	-12.000	YMRP 15.1875 INCHES
						SCALE .0405

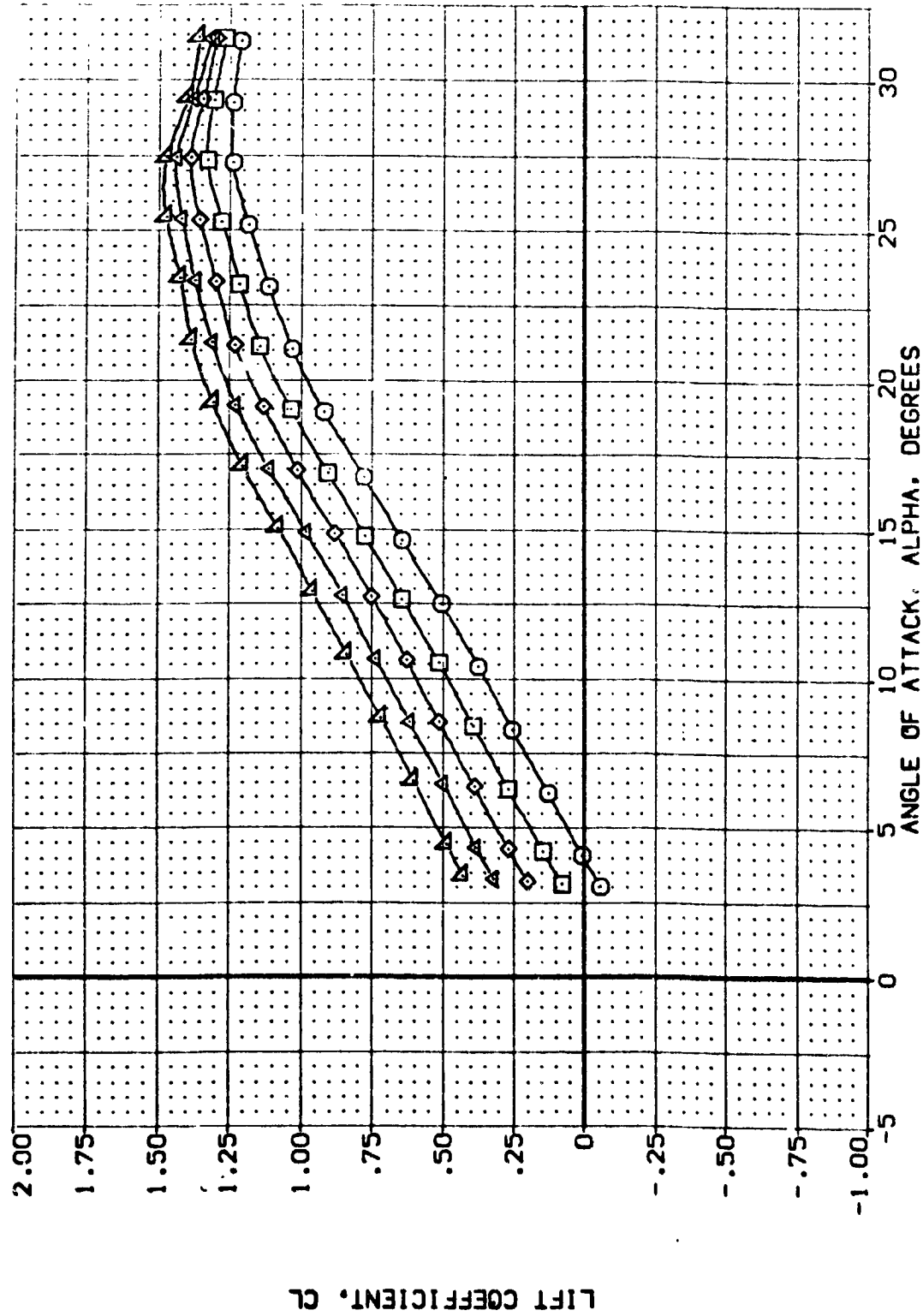


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORX	BOFLAP	REFERENCE INFORMATION
(B02020)	QAS28 B26C9G1S47F8 V115E28V8RSX9	-5.000	.125	25.000	-12.000	SREF 4.4119 SO.FT.
(B02021)	QAS28 B26C9G1S47F8 V115E28V8RSX9	.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(B02022)	QAS28 B26C9G1S47F8 V115E28V8RSX9	5.000	.125	25.000	-12.000	BREF 37.9559 INCHES
(B02023)	QAS28 B26C9G1S47F8 V115E28V8RSX9	10.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
(B02025)	QAS28 B26C9G1S47F8 V115E28V8RSX9	15.000	.125	25.000	-12.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

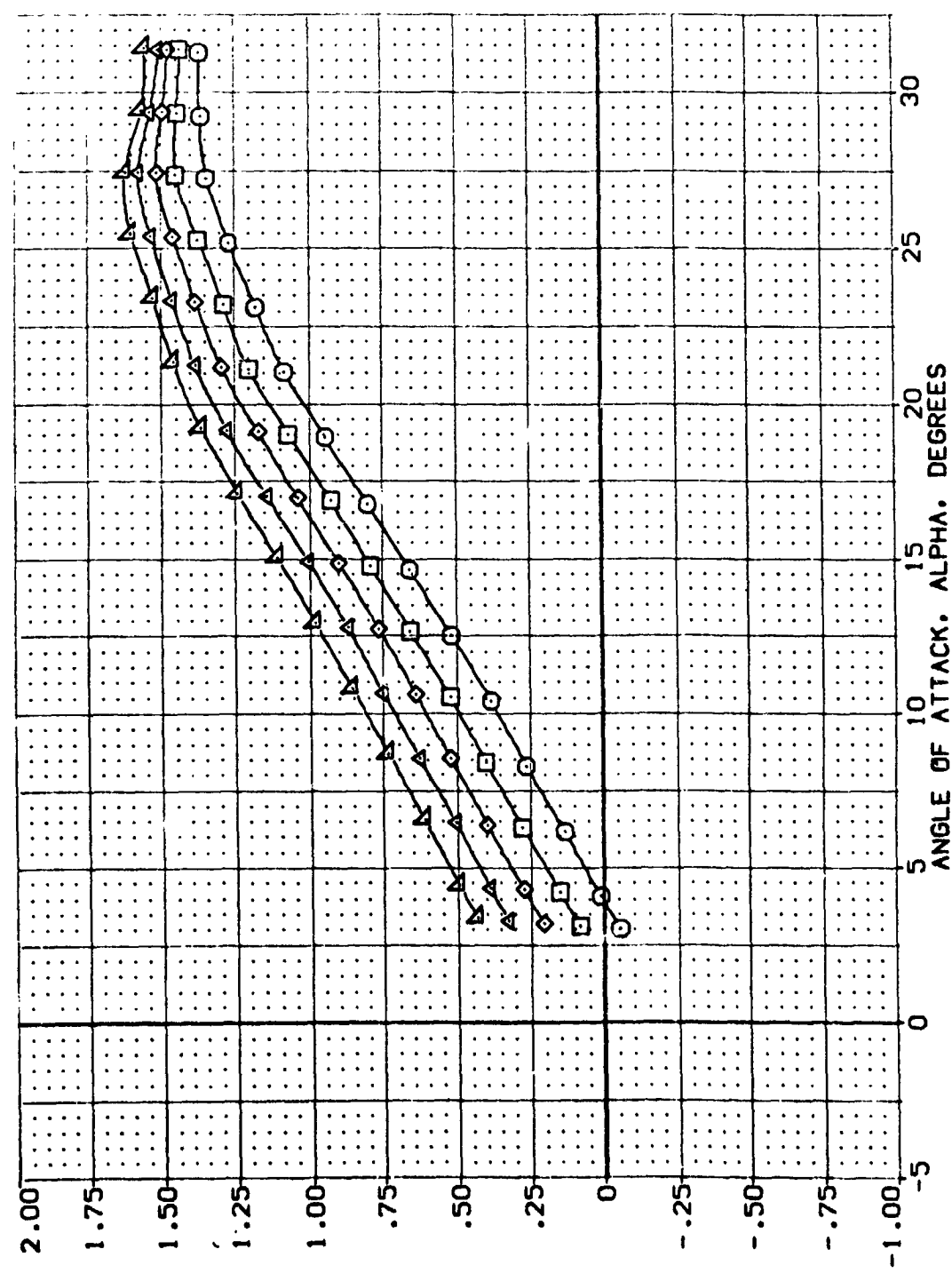


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(MACH = .20)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802030)	0A628 B26C9G1S47F8 V116E28V8R5X9	-5.000	.125	25.000	-12.000	SREF 4.4119 SQ.FT.
(802031)	0A628 B26C9G1S47F8 V116E28V8R5X9	5.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(802032)	0A628 B26C9G1S47F8 V116E28V8R5X9	10.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(802033)	0A628 B26C9G1S47F8 V116E28V8R5X9	15.000	.125	25.000	-12.000	XTRP 43.5974 INCHES
(802034)	0A628 B26C9G1S47F8 V116E28V8R5X9					YTRP .0000 INCHES
(802035)	0A628 B26C9G1S47F8 V116E28V8R5X9					ZTRP 15.1875 INCHES
						SCALE .0405

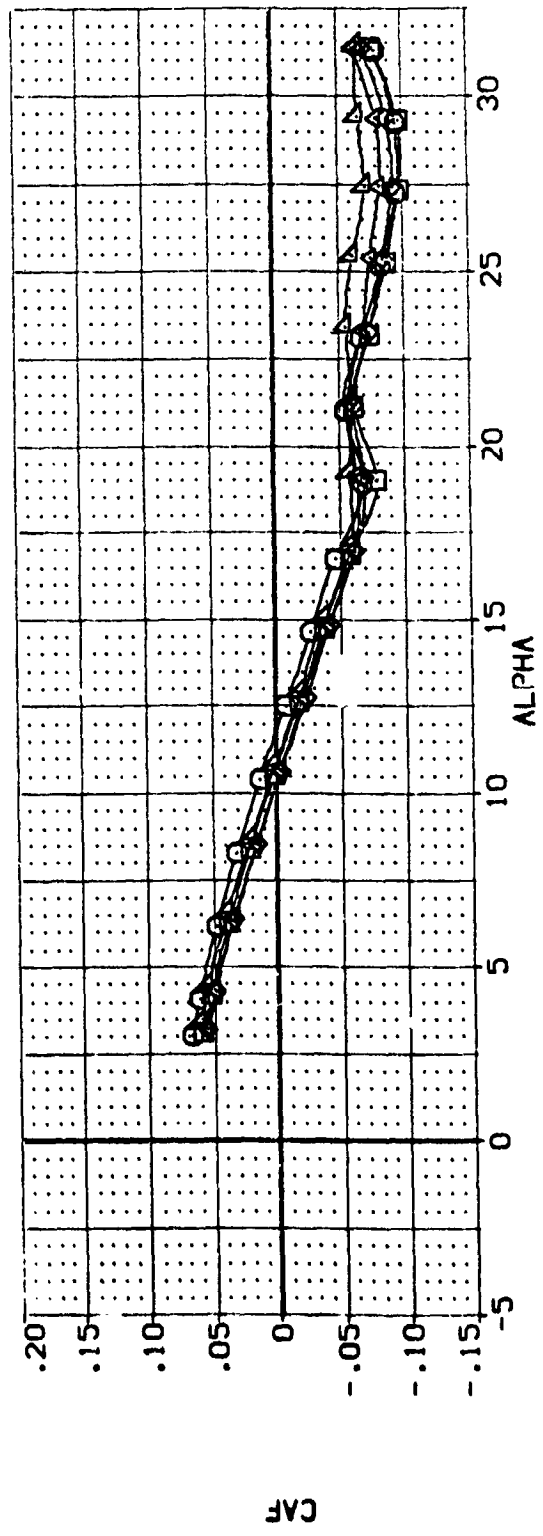
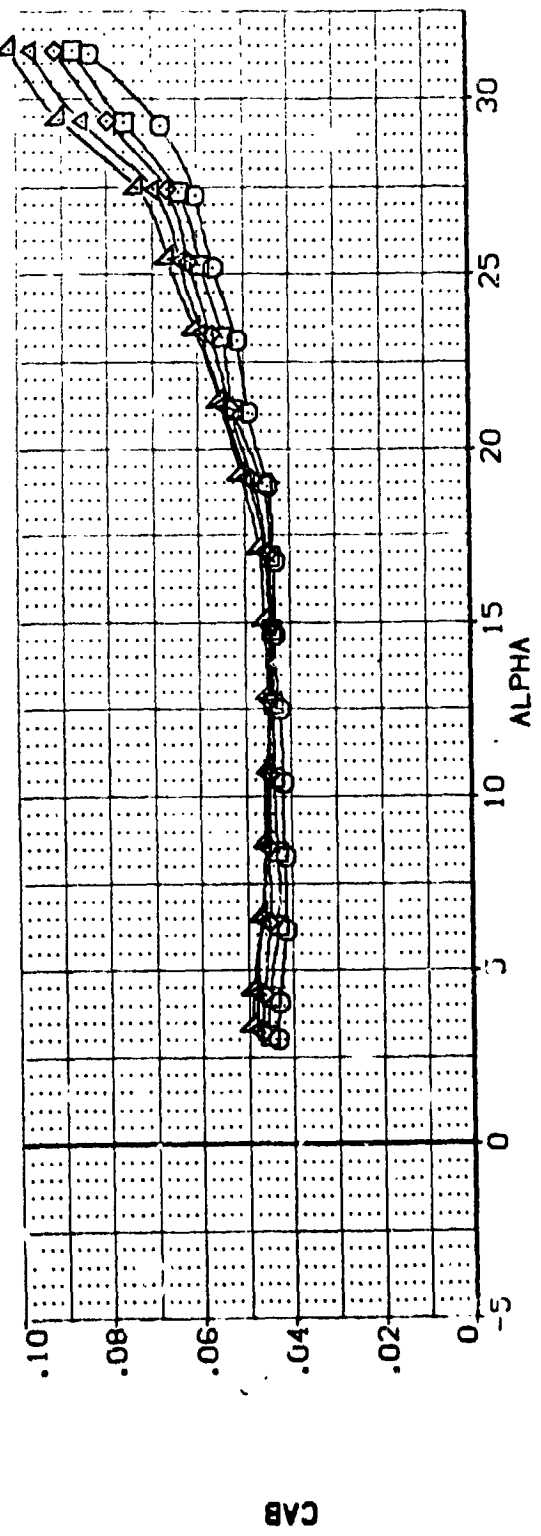
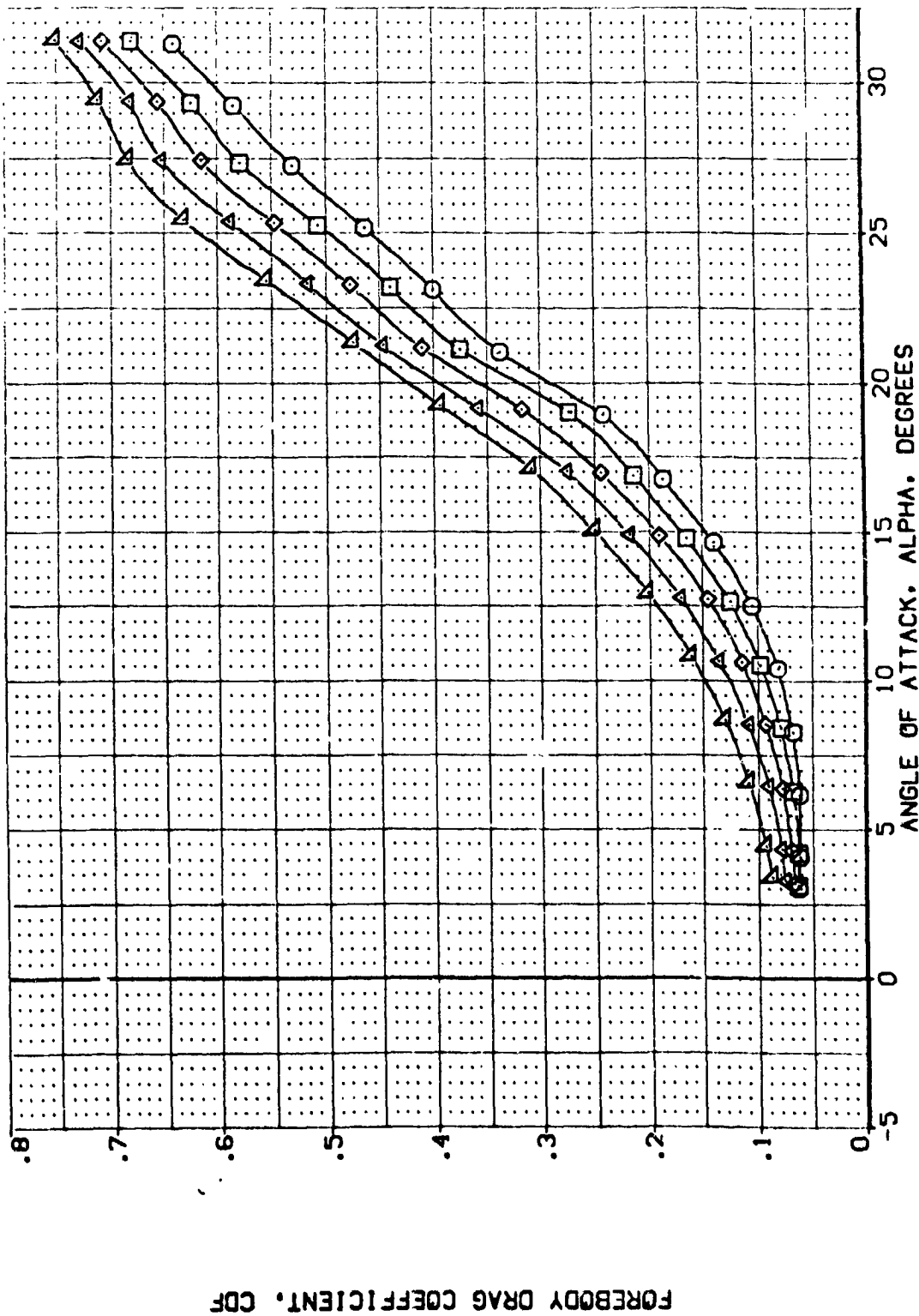


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02020)	04628 B26C9G1SM7F8 V116E28V8F5X9	-5.000	.125	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02021)	04628 B26C9G1SM7F8 V116E28V8F5X9	.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(B02022)	04628 B26C9G1SM7F8 V116E28V8F5X9	5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(B02023)	04628 B26C9G1SM7F8 V116E28V8F5X9	10.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
(B02024)	04628 B26C9G1SM7F8 V116E28V8F5X9	15.000	.125	25.000	-12.000	YMRP .0000 INCHES
(B02025)	04628 B26C9G1SM7F8 V116E28V8F5X9					ZMRP 15.1875 INCHES
						SCALE .0405



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BOFLAP	REFERENCE INFORMATION
(802020)	0A628 B26C9G1S47F8 V116E28VBR5X9	-5.000	.125	25.000	-12.000	SREF 4.4119 SO.FT
(802021)	0A628 B26C9G1S47F8 V116E28VBR5X9	5.000	.125	25.000	-12.000	LREF 19.2299 INCH'S
(802022)	0A628 B26C9G1S47F8 V116E28VBR5X9	10.000	.125	25.000	-12.000	BREF 37.9359 INCH'S
(802023)	0A628 B26C9G1S47F8 V116E28VBR5X9	15.000	.125	25.000	-12.000	XMRP 43.5974 INCH'S
(802024)	0A628 B26C9G1S47F8 V116E28VBR5X9					YMRP .0000 INCH'S
(802025)	0A628 B26C9G1S47F8 V116E28VBR5X9					ZMRP 15.1875 INCH'S
						SCALE .0405

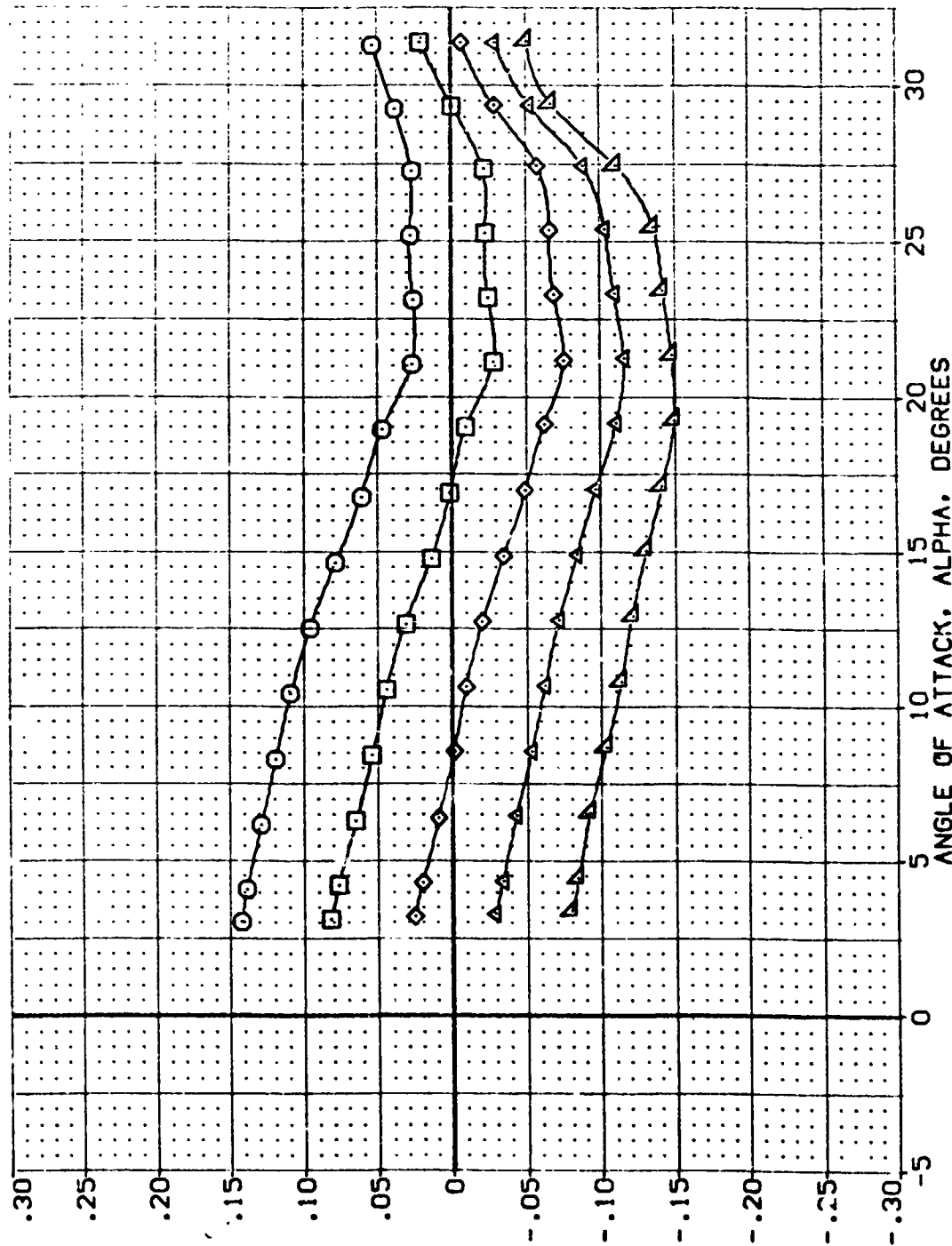


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(AJMACH = .20)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(802020)	0A628 B26C9G SMTF8 V116E28V85SX9
(802021)	0A628 B26C9G SMTF8 V116E28V85SX9
(802022)	0A628 B26C9G SMTF8 V116E28V85SX9
(802023)	0A628 B26C9G SMTF8 V116E28V85SX9
(802024)	0A628 B26C9G SMTF8 V116E28V85SX9
(802025)	0A628 B26C9G SMTF8 V116E28V85SX9

ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
-5.000	.125	25.000	-12.000	SREF 4.4119 50.FT.
.000	.125	25.000	-12.000	LREF 19.2299 INCHES
5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
10.000	.125	25.000	-12.000	YMRP 43.5974 INCHES
15.000	.125	25.000	-12.000	ZMRP .0000 INCHES
				SCALE 15.1875 INCHES
				SCALE .0405 INCHES

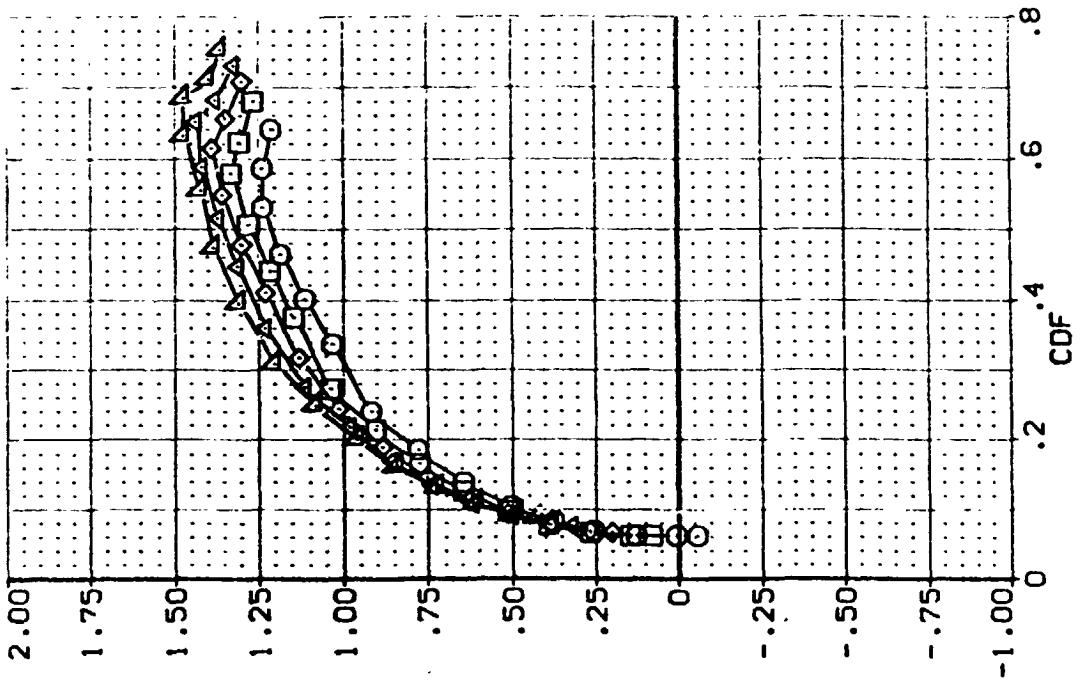
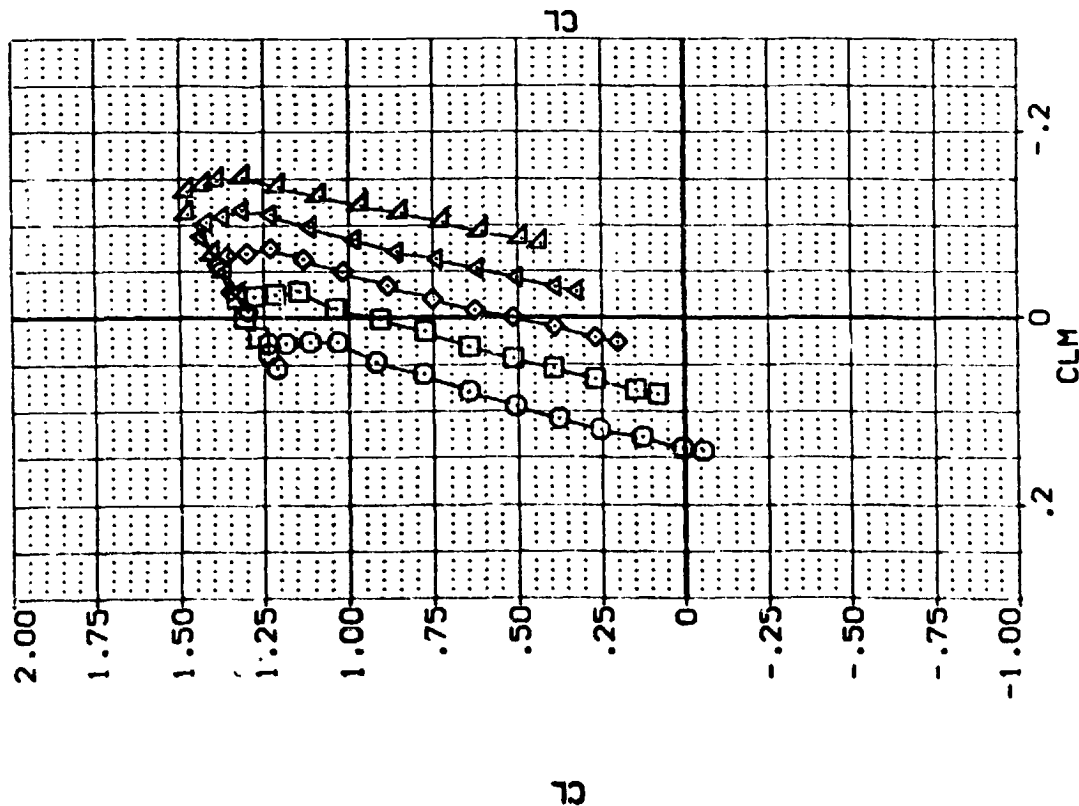


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02030)	378 B26C9G 547F8	-5.000	.125	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02021)	378 B26C9G 547F8	5.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(B07023)	0A6.8 B26C9G 547F8	5.000	.125	25.000	-12.000	BREF 37.5359 INCHES
(B02029)	0A6.28 B26C9G 547F8	10.000	.125	25.000	-12.000	YMRP 43.1974 INCHES
(B02025)	0A6.28 B26C9G 547F8	15.000	.125	25.000	-12.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

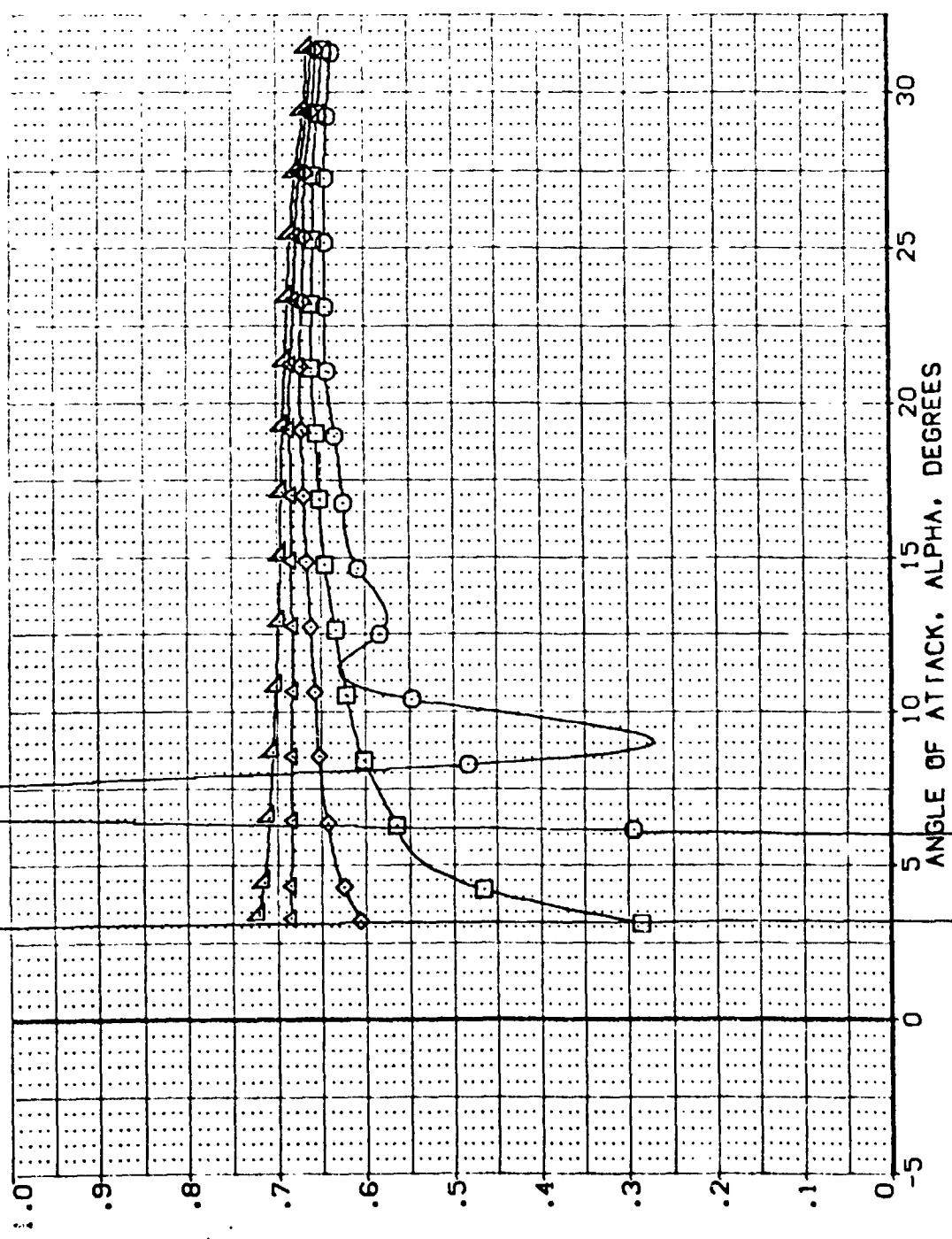


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A) MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(802020)	04628 B26C5G1547F8 V116E28V8R5X9	-5.000	.125	25.000	-12.000	SREF 4.4119 SO.FT.
(802021)	04628 B26C5G1547F8 V116E28V8R5X9	5.000	.125	25.000	-12.000	LREF 19.2289 INCHES
(802022)	04628 B26C5G1547F8 V116E28V8R5X9	10.000	.125	25.000	-12.000	BREF 37.5359 INCHES
(802023)	04628 B26C5G1547F8 V116E28V8R5X9	15.000	.125	25.000	-12.000	XHREF 43.5974 INCHES
(802024)	04628 B26C5G1547F8 V116E28V8R5X9					YHREF .0000 INCHES
(802025)	04628 B26C5G1547F8 V116E28V8R5X9					ZHREF 15.1875 INCHES
						SCALE .0405

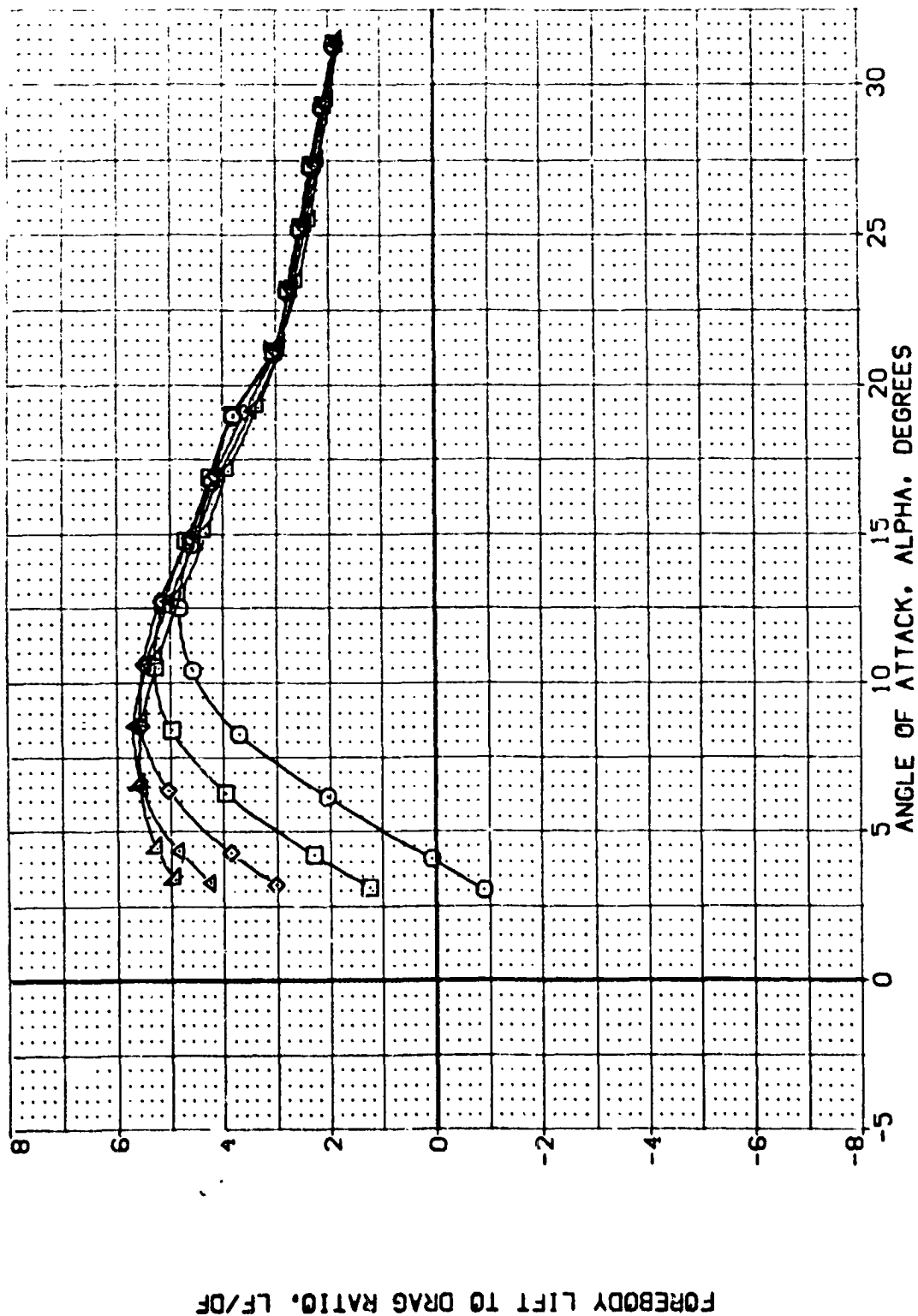


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BOFLAP	REFERENCE INFORMATION
(B02034)	0A628 B26C9G1547F8 V116E28V8R5X9	-40.000	.125	25.000	-12.000	SREF 4.4119 SO.FT.
(B02033)	0A628 B26C9G1547F8 V116E28V8R5X9	-30.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(B02032)	0A628 B26C9G1547F8 V116E28V8R5X9	-20.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(B02031)	0A628 B26C9G1547F8 V116E28V8R5X9	-15.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
(B02027)	0A628 B26C9G1547F8 V116E28V8R5X9	-10.000	.125	25.000	-12.000	ZMRP 15.1875 INCHES
(B02021)	0A628 B26C9G1547F8 V116E28V8R5X9	.000	.125	25.000	-12.000	SCALE .0405

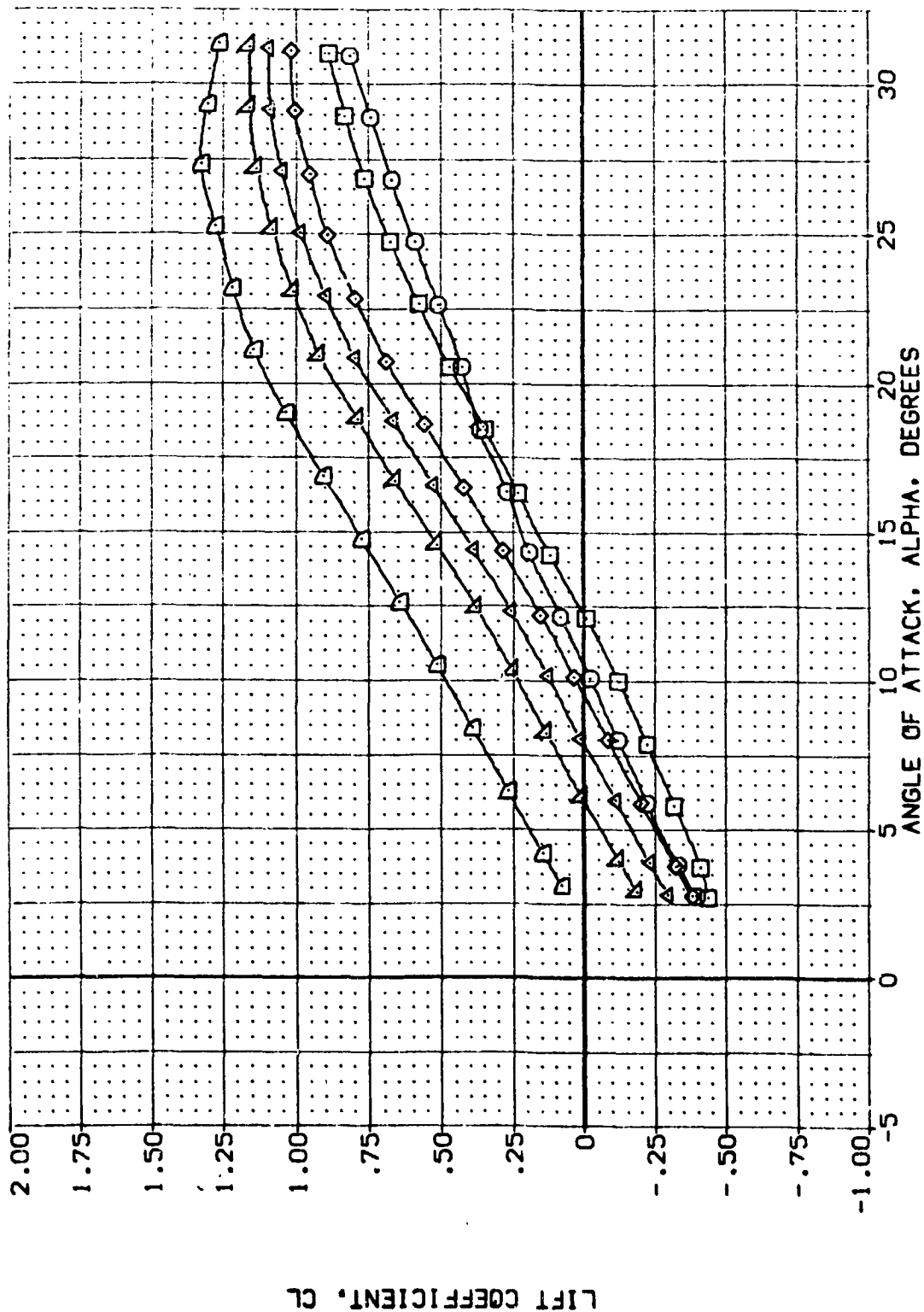


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND  $H/BW = 0.125$

(A) MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(802034)	04628 826C9G1S47F8	-40.000	.125	25.000	-12.000	SREF 4.4119 SQ.FT.
(802033)	04628 826C9G1S47F8	-30.000	.125	25.000	-12.000	LREF 19.2298 INCHES
(802032)	04628 826C9G1S47F8	-20.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(802031)	04628 826C9G1S47F8	-15.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
(802027)	04628 826C9G1S47F8	-10.000	.125	25.000	-12.000	YMRP .0000 INCHES
(802021)	04628 826C9G1S47F8	.000	.125	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

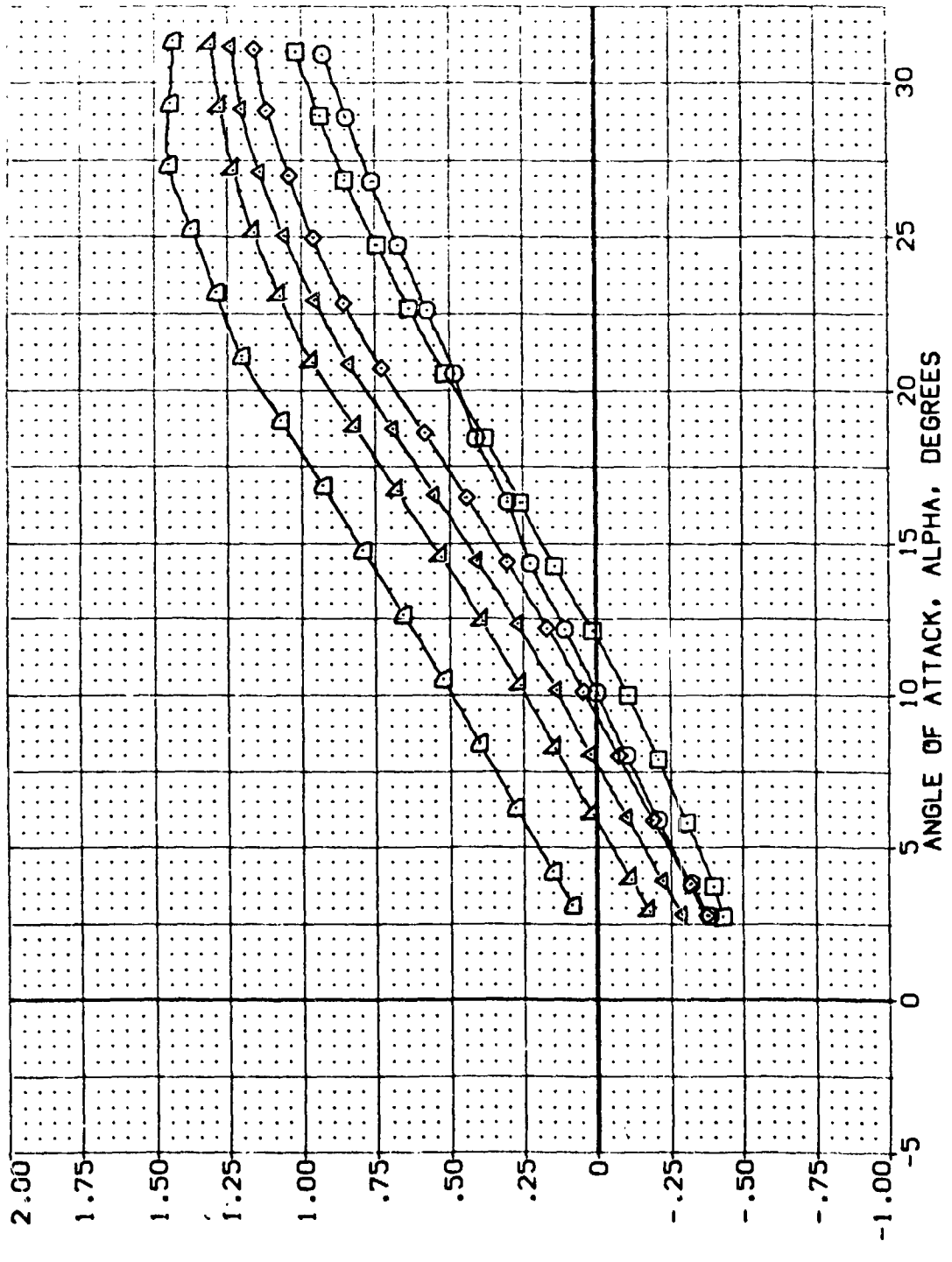


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/Z	SPDRK	BOFLAP	REFERENCE INFORMATION
(802034)	0A628 B26C9G1547F8 V116E28V8R5X9	-40.000	.125	25.000	-12.000	SREF 4.4119 SQ.FT.
(802033)	0A628 B26C9G1547F8 V116E28V8R5X9	-30.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(802032)	0A628 B26C9G1547F8 V116E28V8R5X9	-20.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(802031)	0A628 B26C9G1547F8 V116E28V8R5X9	-15.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
(802027)	0A628 B26C9G1547F8 V116E28V8R5X9	-10.000	.125	25.000	-12.000	YMRP .0000 INCHES
(802021)	0A628 B26C9G1547F8 V116E28V8R5X9	-10.000	.125	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

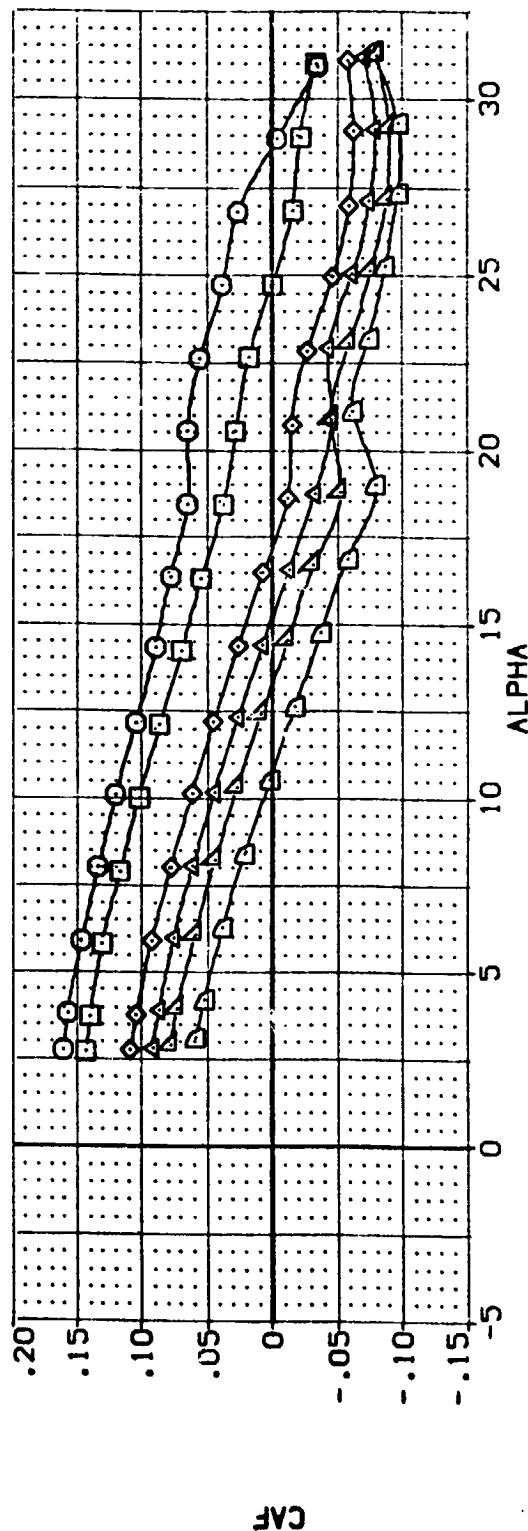
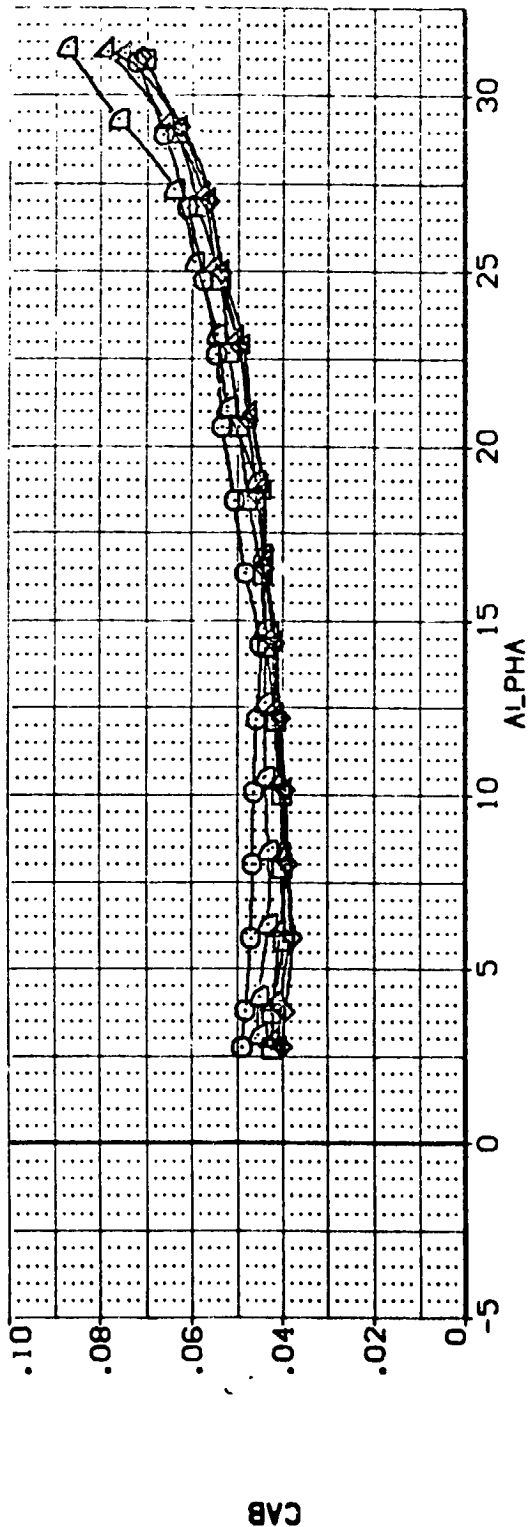


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORRK	BOFLAP	REFERENCE INFORMATION
(B02034)	0A628 B26C9G1S47F8 V116E28V8R5X9	-40.000	.125	25.000	-12.000	SREF 4.4119 SQ. FT.
(B02033)	0A628 B26C9G1S47F8 V116E28V8R5X9	-30.000	.125	25.000	-12.000	LREF 19.2298 INCHES
(B02032)	0A628 B26C9G1S47F8 V116E28V8R5X9	-20.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(B02031)	0A628 B26C9G1S47F8 V116E28V8R5X9	-15.000	.125	25.000	-12.000	XMRP 43.5374 INCHES
(B02027)	0A628 B26C9G1S47F8 V116E28V8R5X9	-10.000	.125	25.000	-12.000	ZMRP .0000 INCHES
(B02021)	0A628 B26C9G1S47F8 V116E28V8R5X9	.000	.125	25.000	-12.000	SCALE 15.1875 INCHES

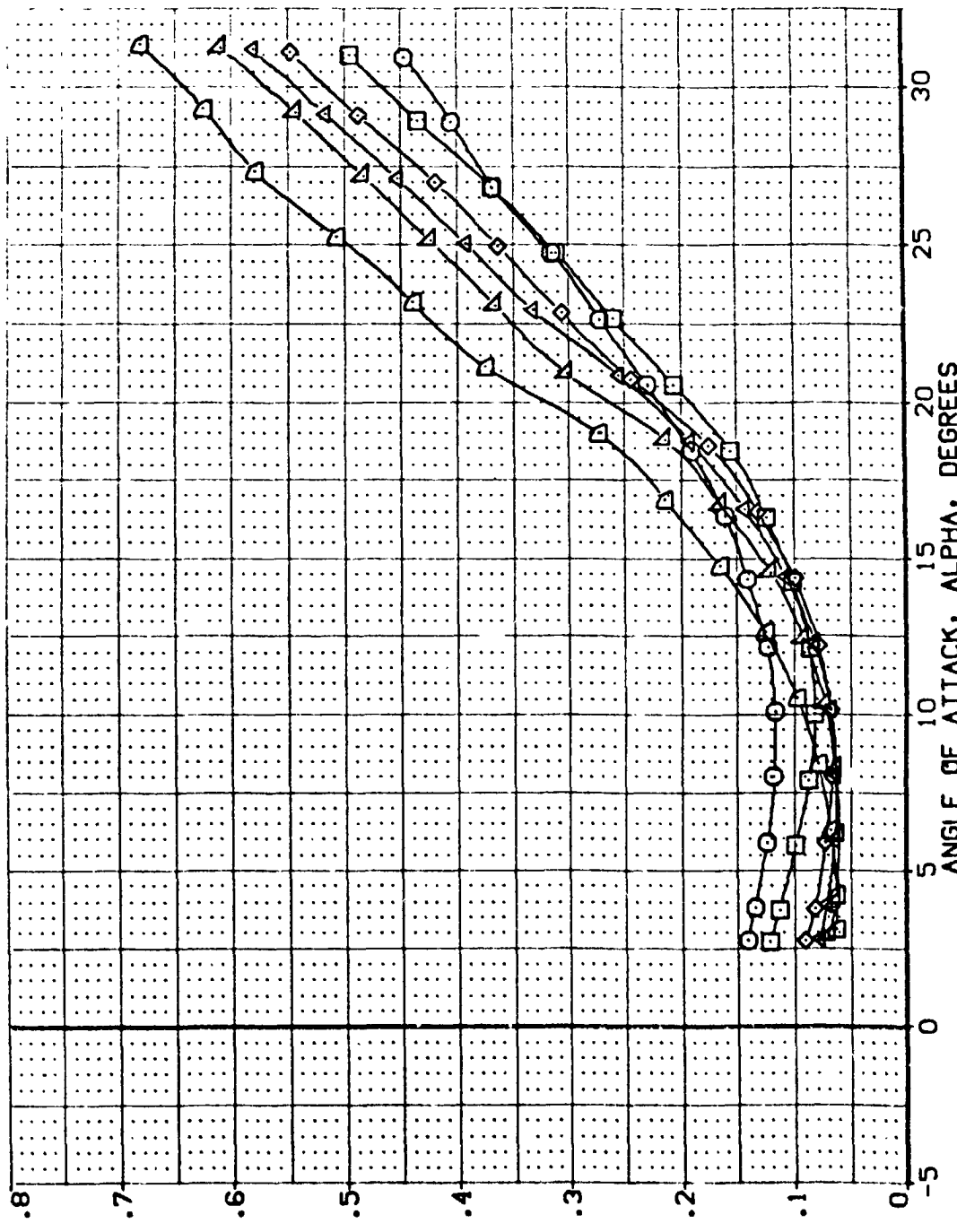


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

{BDZ034}	DA528	BZ6C3G1547F8	V11E28/8PS49
{BDZ033}	DA528	BZ6C3G1547F8	V11E28/8PS49
{BDZ032}	DA528	BZ6C3G1547F8	V11E28/8PS49
{BDZ031}	DA528	BZ6C3G1547F8	V11E28/8PS49
{BDZ027}	DA528	BZ6C3G1547F8	V11E28/8PS49
{BDZ021}	DA528	BZ6C3G1547F8	V11E28/8PS49

ELEVON W/BW SPOBRK BDFLAP REFERENCE INFORMATION

-40.000	.125	25.000	-12.000	SREF	4.4119	50.FT.
-30.000	.125	25.000	-12.000	LREF	19.2299	INCHES
-20.000	.125	25.000	-12.000	BREF	37.9359	INCHES
-15.000	.125	25.000	-12.000	XPRP	43.5974	INCHES
-10.000	.125	25.000	-12.000	YPRP	0.000	INCHES
				ZPRP	15.1875	INCHES
				SCALE	.0405	SCALE

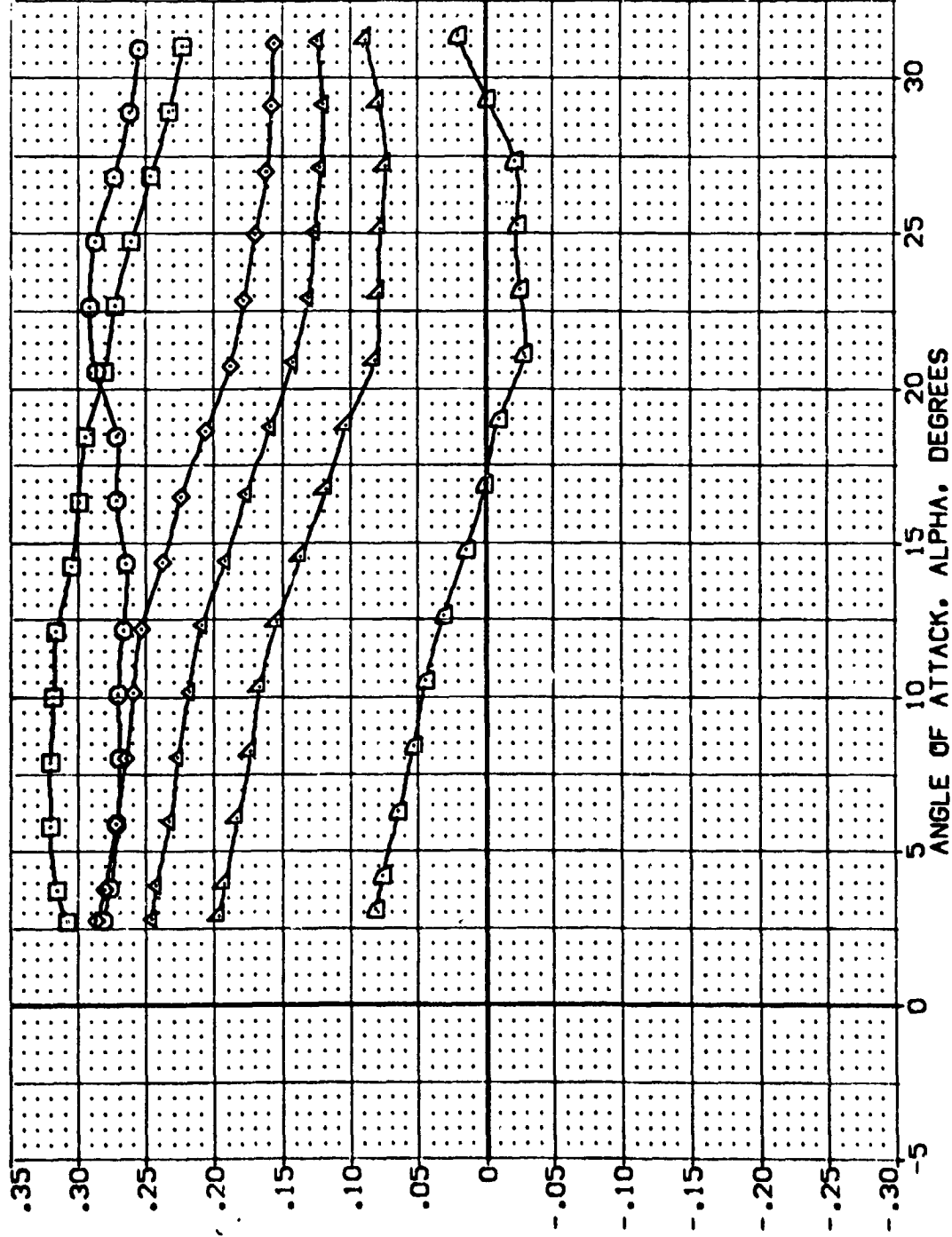


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

CAJMACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[802024]	04528 B26C3G1547F8 V116E28V8F5X3
[802025]	04528 B26C3G1547F8 V116E28V8F5X3
[802026]	04528 B26C3G1547F8 V116E28V8F5X3
[802027]	04528 B26C3G1547F8 V116E28V8F5X3
[802028]	04528 B26C3G1547F8 V116E28V8F5X3
[802029]	04528 B26C3G1547F8 V116E28V8F5X3

ELEVON	H/BW	SPORBN	BD/LAP	REFERENCE INFORMATION
-40.000	.25	25.000	-12.000	BREF 4.4118 80.47
-20.000	.25	25.000	-12.000	LREF 19.2295 106.6
-20.000	.25	25.000	-12.000	BREF 37.9359 106.6
-15.000	.25	25.000	-12.000	YMAP 43.5574 106.6
-10.000	.25	25.000	-12.000	ZMAP 15.1875 106.6
				SCALE .0405

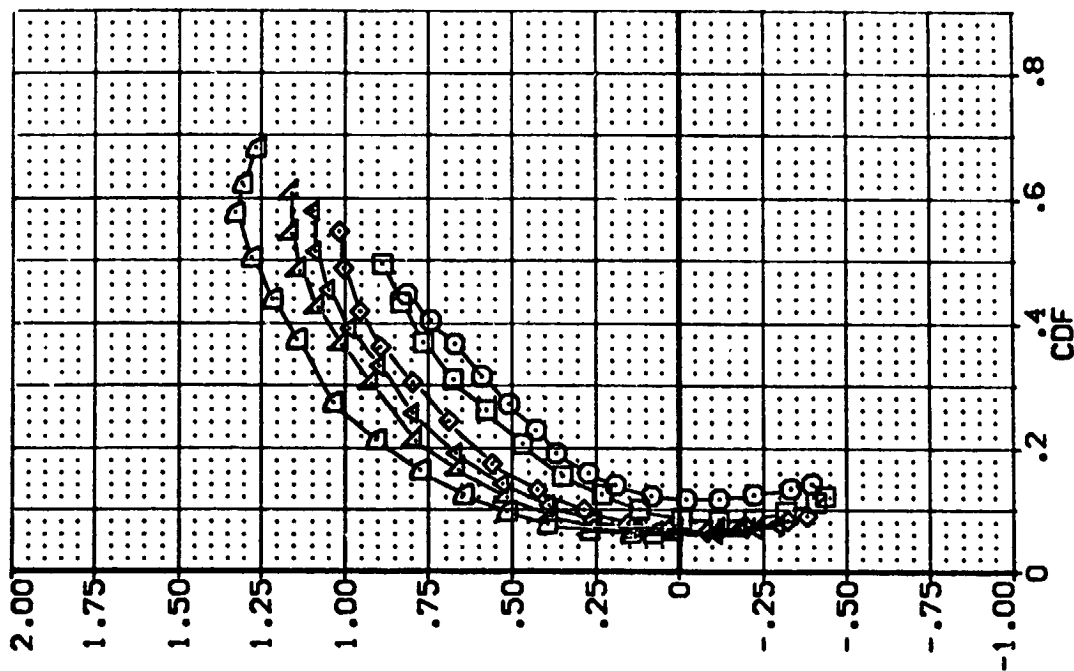
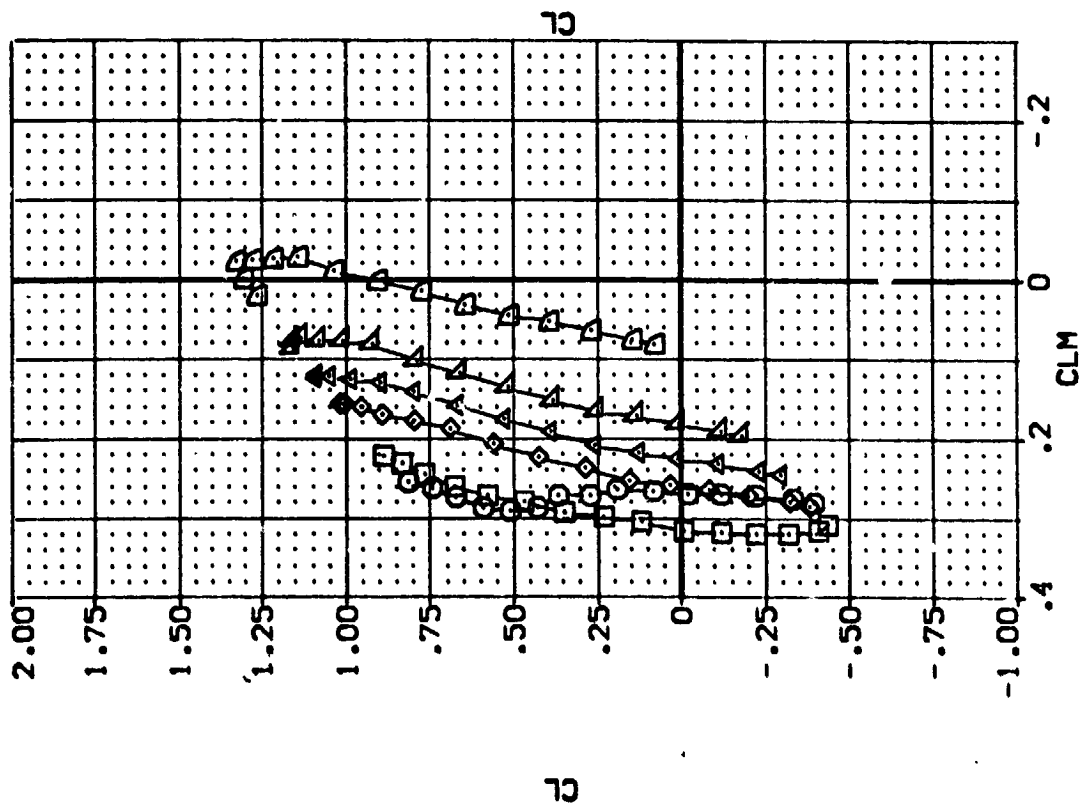


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BDFLAP	REFERENCE INFORMATION
(BD2024)	0A628 B26C9G1SMTF8 V116E28V8K5X9	-40.000	.125	25.000	-12.000	SREF 4.4119 50. FT.
(BD2033)	0A628 B26C9G1SMTF8 V116E28V8K5X9	-30.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(BD2032)	0A628 B26C9G1SMTF8 V116E28V8K5X9	-20.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(BD2031)	0A628 B26C9G1SMTF8 V116E28V8K5X9	-15.000	.125	25.000	-12.000	XREF 43.5974 INCHES
(BD2027)	0A628 B26C9G1SMTF8 V116E28V8K5X9	-10.000	.125	25.000	-12.000	YREF .0000 INCHES
(BD2021)	0A628 B26C9G1SMTF8 V116E28V8K5X9	.000	.125	25.000	-12.000	ZREF 15.1875 INCHES
						SCALE .0405

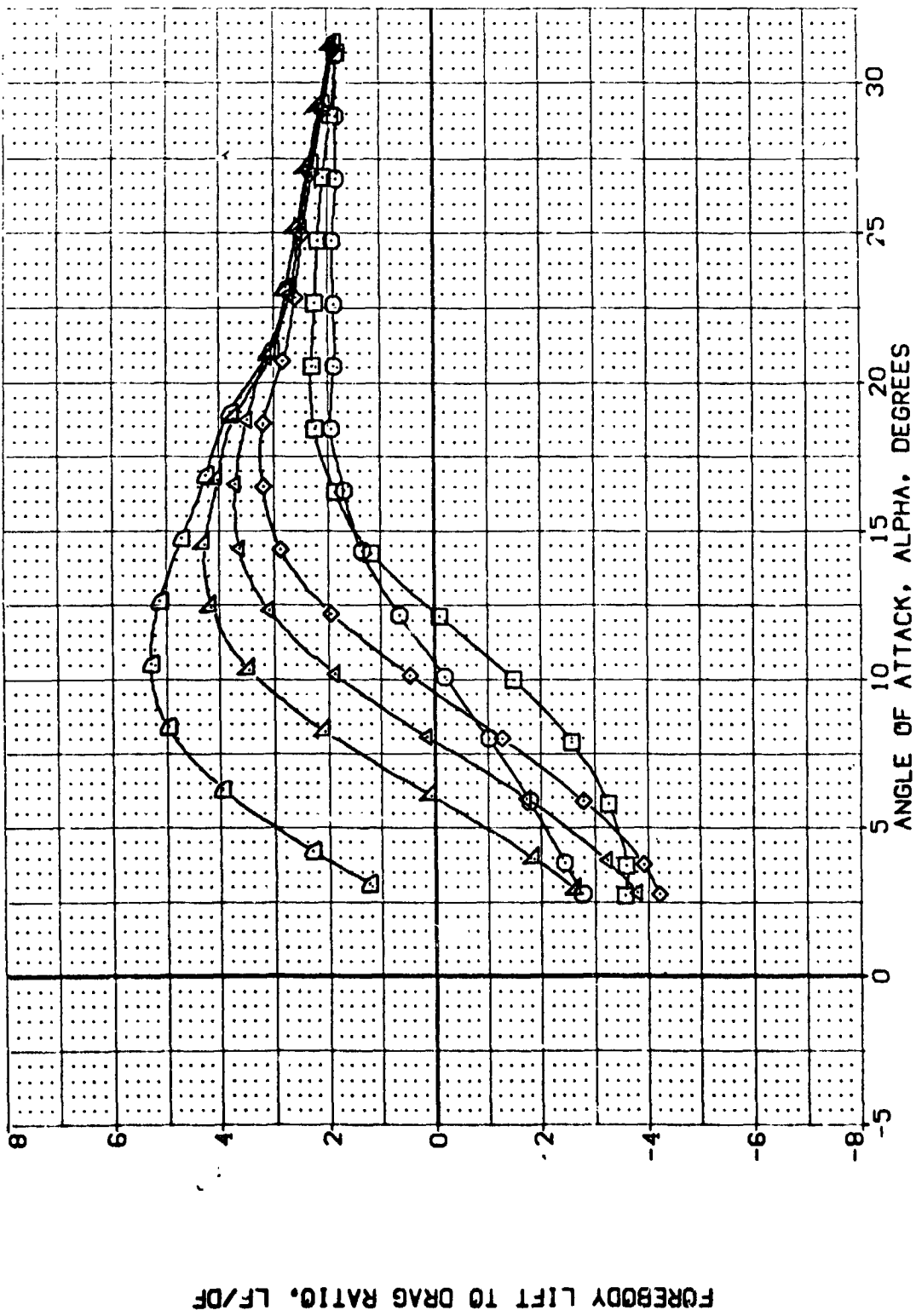


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(A)MACH = .20





0A62B B26C9615M7F8 W116E28V8R5X9 (1DZ034)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	SREF	REFERENCE INFORMATION
0	.000		BETA	.000	DELTON	IDZ033	-30.000	4.4119	SO.FT.
		BOFLAP	-12.000	.000	-40.000	IDZ034	-15.000	19.2299	INCHES
		RUDER	.000	25.000	-20.000	IDZ031	-5.000	37.9359	INCHES
		H/BW	.125		-10.000	IDZ030	5.000	43.5974	INCHES
					10.000	IDZ023	15.000	.0000	INCHES
						IDZ021		15.1875	INCHES
						IDZ029		.0405	SCALE

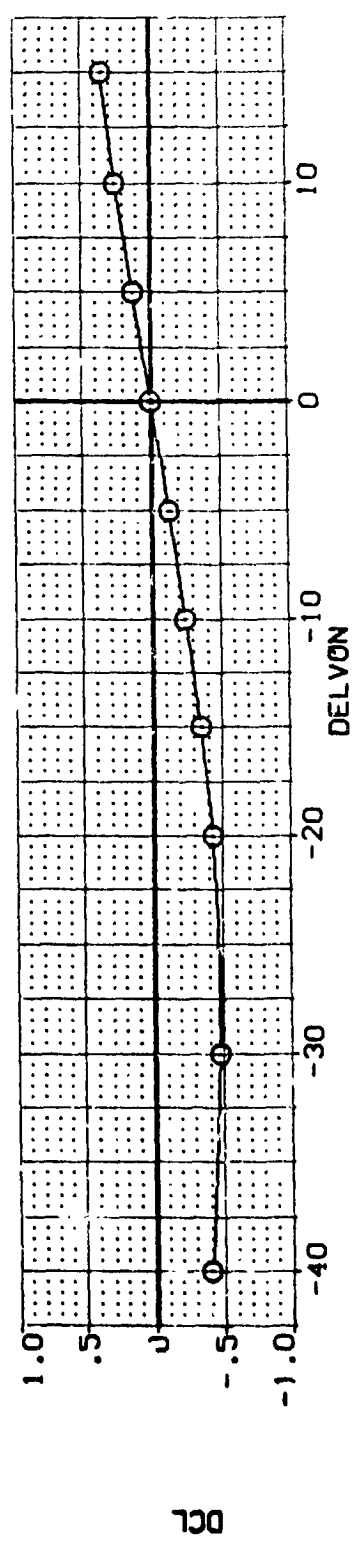
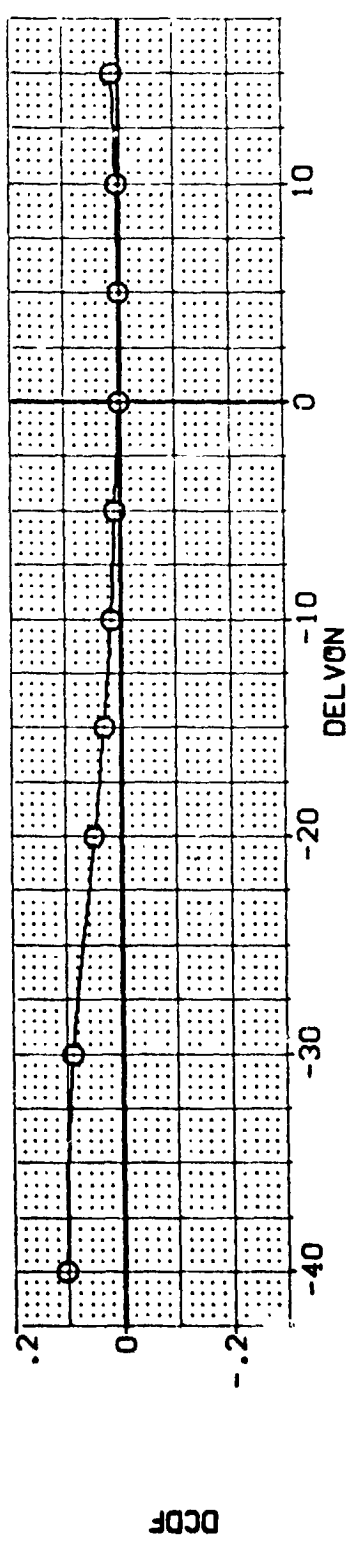
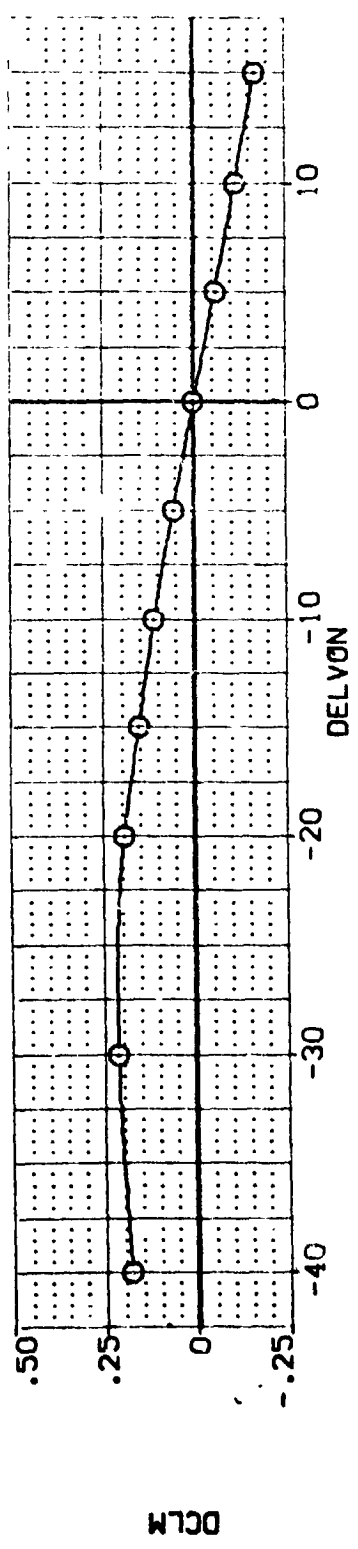


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125



0A6'8 B26C9G15M7F8 W116E28V8R5X9 (10Z034)  
 ALPHA 10.000  
 SYMBOL 0  
 PARAMETRIC VALUES  
 MACH .200  
 BDFL:P -12.000  
 RLOOR .000  
 H/BW .125  
 DATA SOURCE  
 DELVON  
 DATASET  
 10Z033  
 10Z031  
 10Z030  
 10Z023  
 10Z025  
 10Z029  
 10Z027  
 10Z021  
 10Z029  
 25 003  
 SPDBRN  
 REFERENCE INFORMATION  
 SREF 4.4119  
 LREF 19.2299  
 BREF 37.9359  
 XMRP 43.5974  
 YMRP .0000  
 ZMRP 15.1875  
 SCALE .0405  
 SO.FT INCHES INCHES INCHES INCHES INCHES SCALE

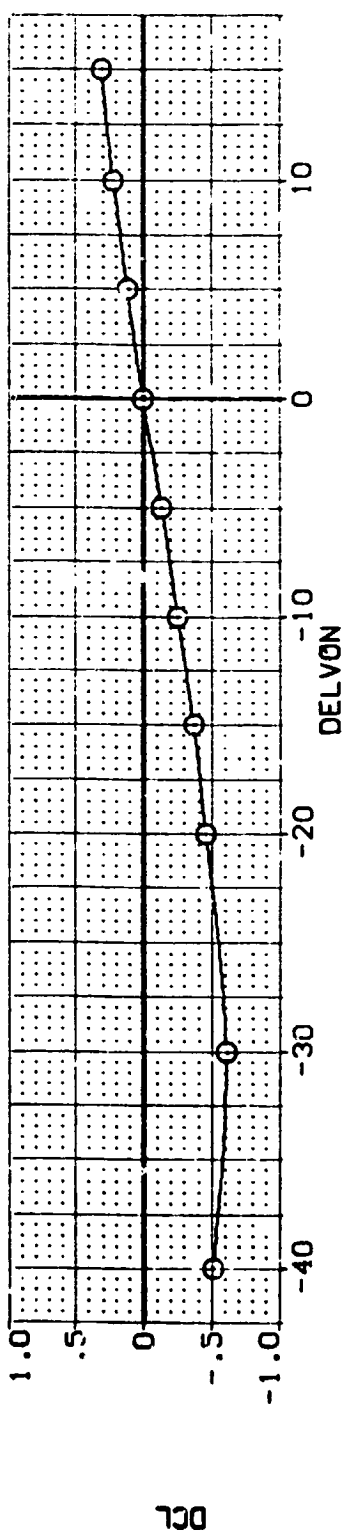
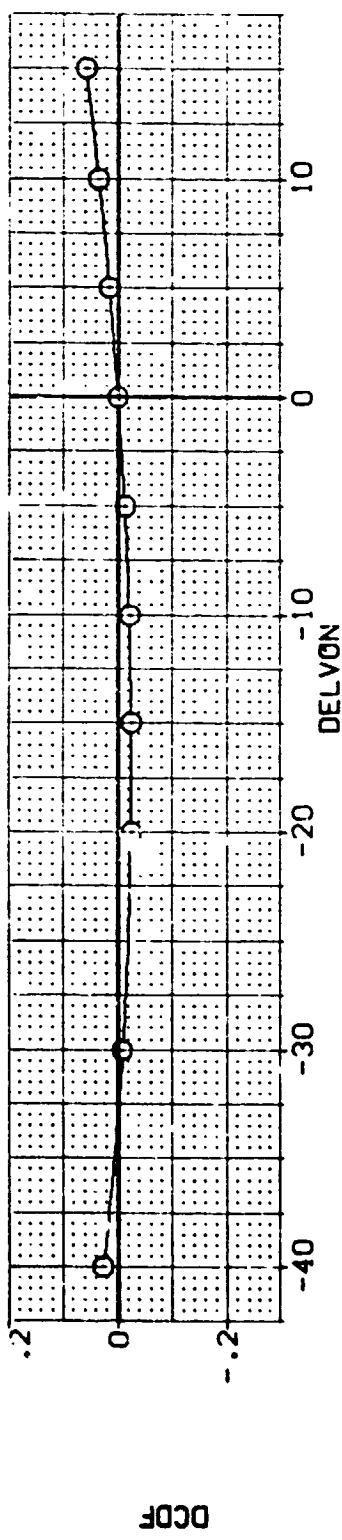
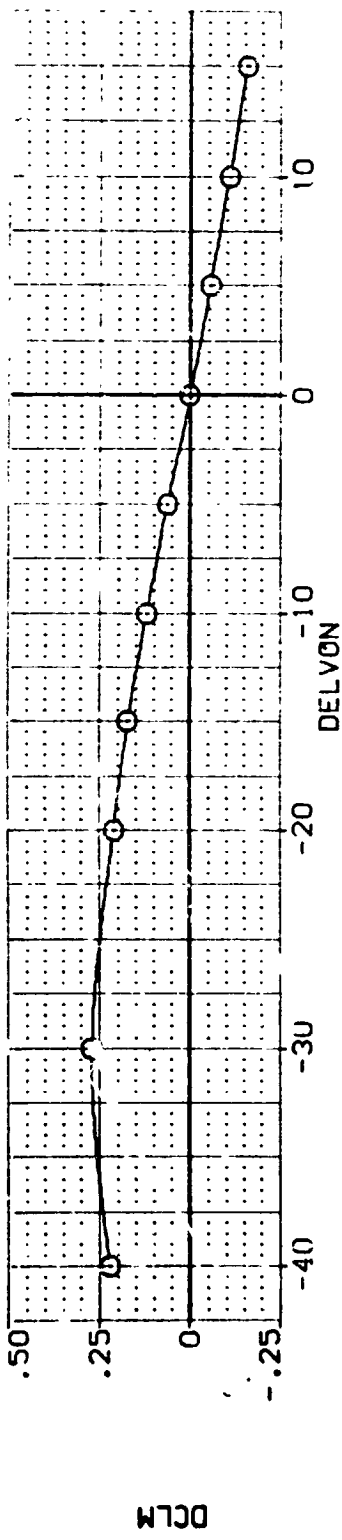


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

0A628 B26C9G15M7F8 W116E28V3R5X9 (1DZ034)

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	15.000	MACH	.200	BETA	.000	DATASET	DELTON	SREF	SO.FT.
BOFLAP	-12.000	AIRLON	.000	1DZ034	-40.000	1DZ033	-30.000	LREF	19.2299
RUDDER	.000	SPDRBK	25.000	1DZ032	-20.000	1DZ031	-15.000	BREF	37.9359
H/BW	.125			1DZ027	-10.000	1DZ030	-5.000	XMRP	43.5974
				1DZ021	.000	1DZ023	5.000	YMRP	.0000
				1DZ029	10.000	1DZ025	15.000	ZMRP	15.1675
								SCALE	.0405

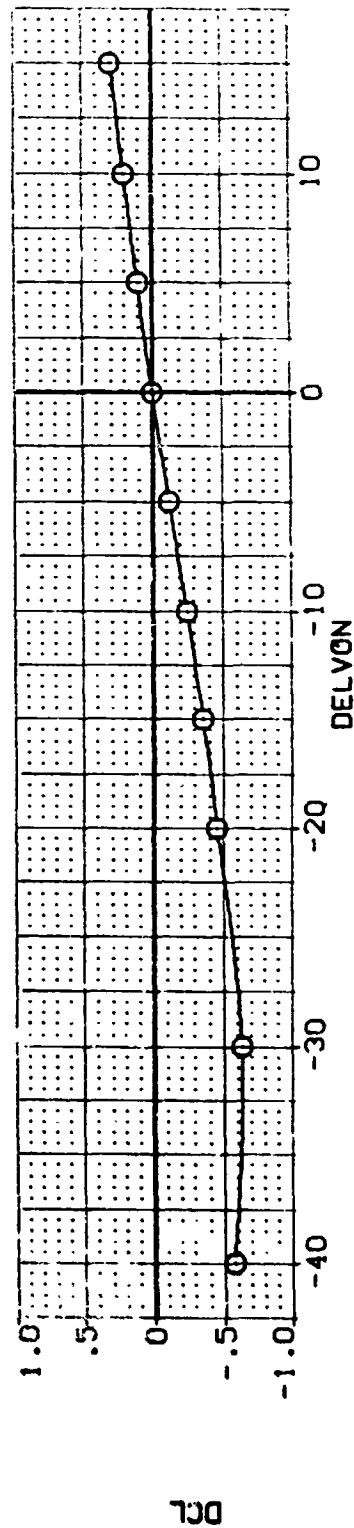
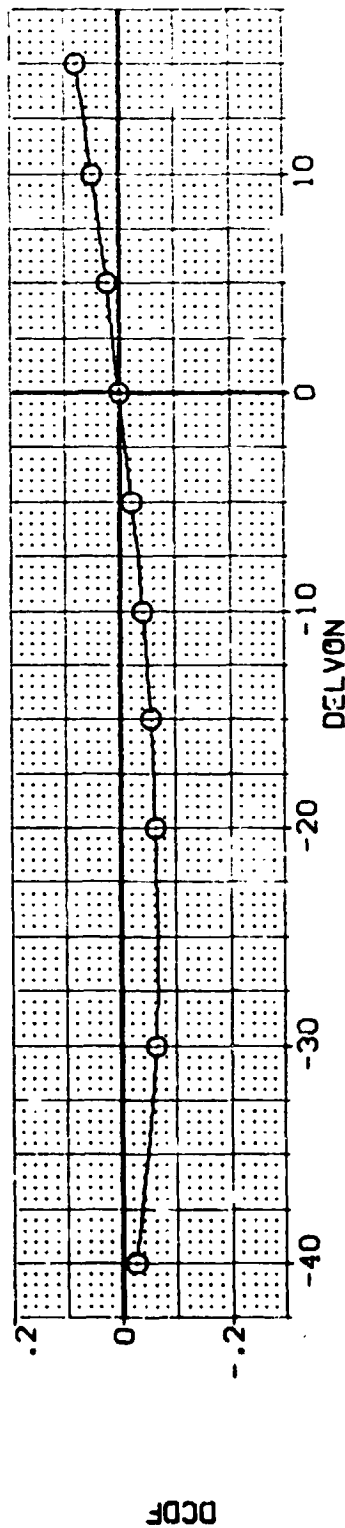
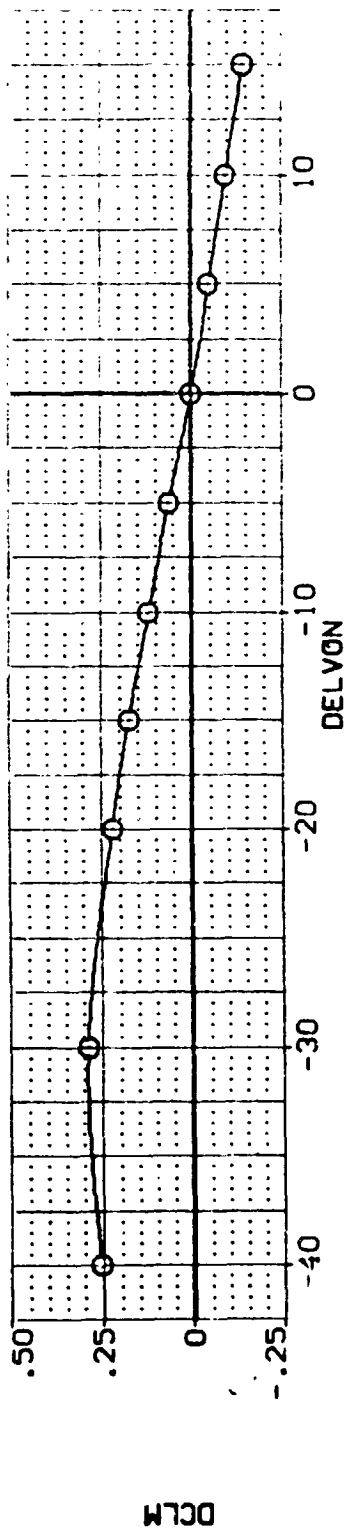


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125



**PAGE 81**



**Q**

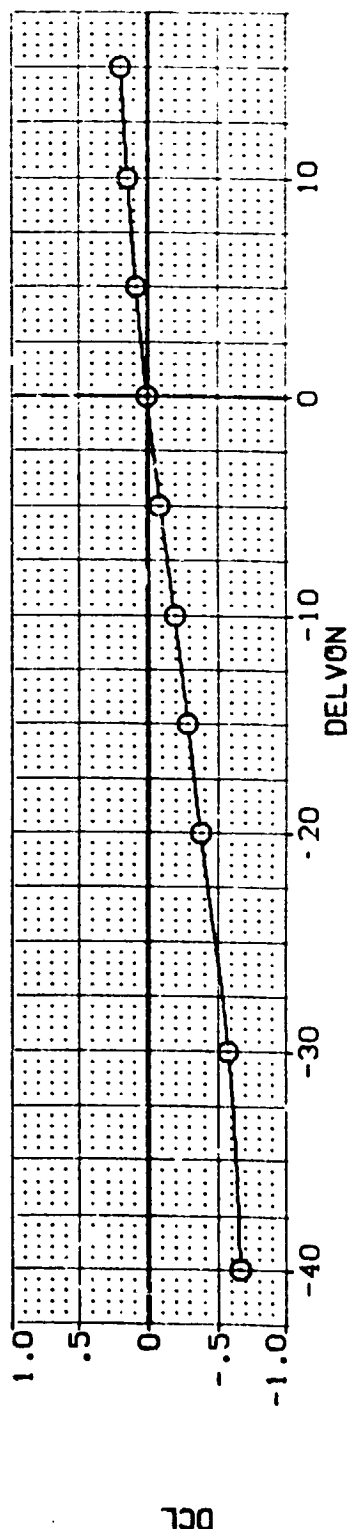


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

(1DZ034)

0  
SYMBOL

ALSTN  
30.000

MACH  
 BOFLAP  
 RLODER  
 HVBV

PARAMETER	UNIT	VALUE
INITIAL TEMPERATURE	°C	200
HEATING RATE	°C/min	12,000
WAX WEIGHT	g	1.000
WAX TYPE		.125

VALUES  
BETA  
A11RON  
SPOBRK

25.000  
.000  
.000

2034  
 2032  
 2027  
 2021

SOURCE	N	O	O	O	O

TASET  
 2033  
 2031  
 2030  
 2023

NOA  
000.  
000.  
000.  
000.

XXXXXX

4  
19  
37  
43

19  
39  
59  
74  
00

**ATION**

**SO. FT.**

**INCHES**

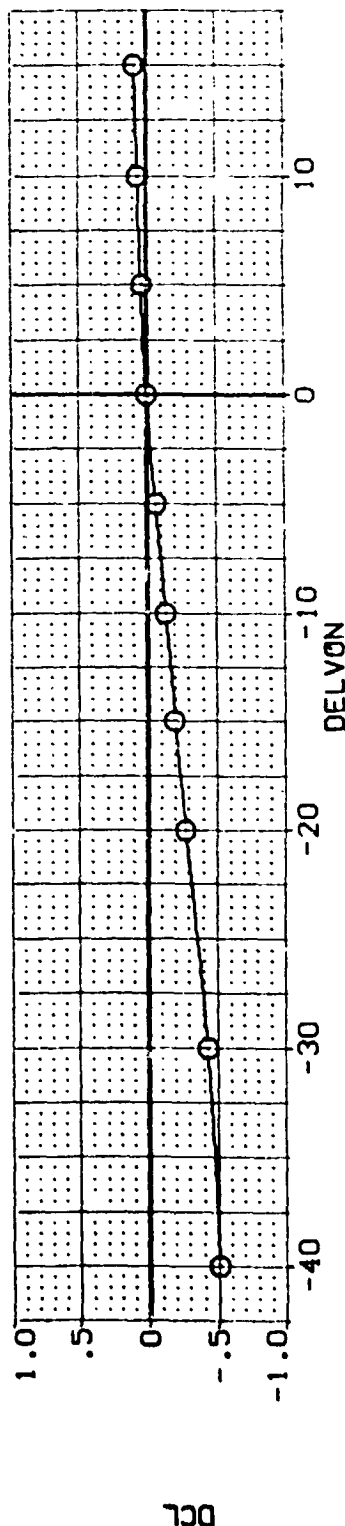
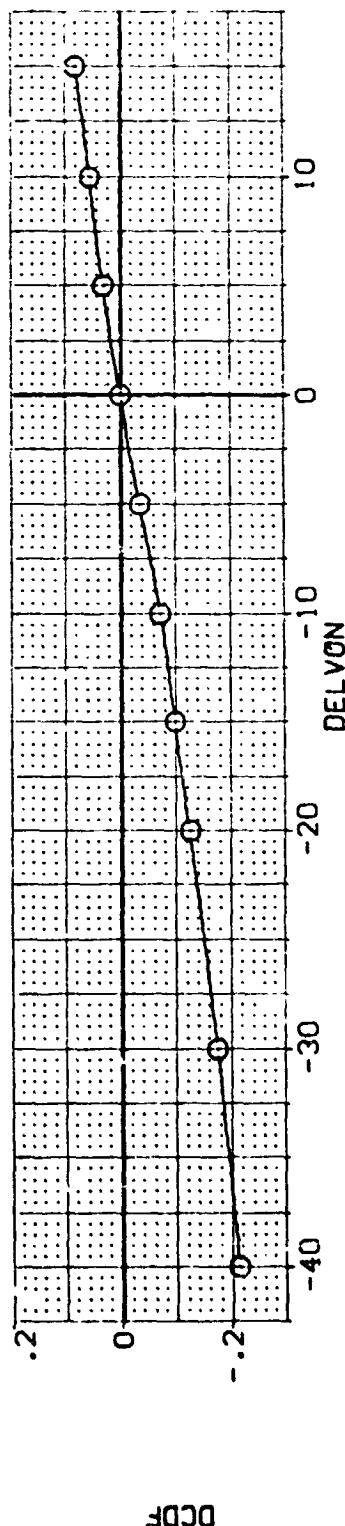
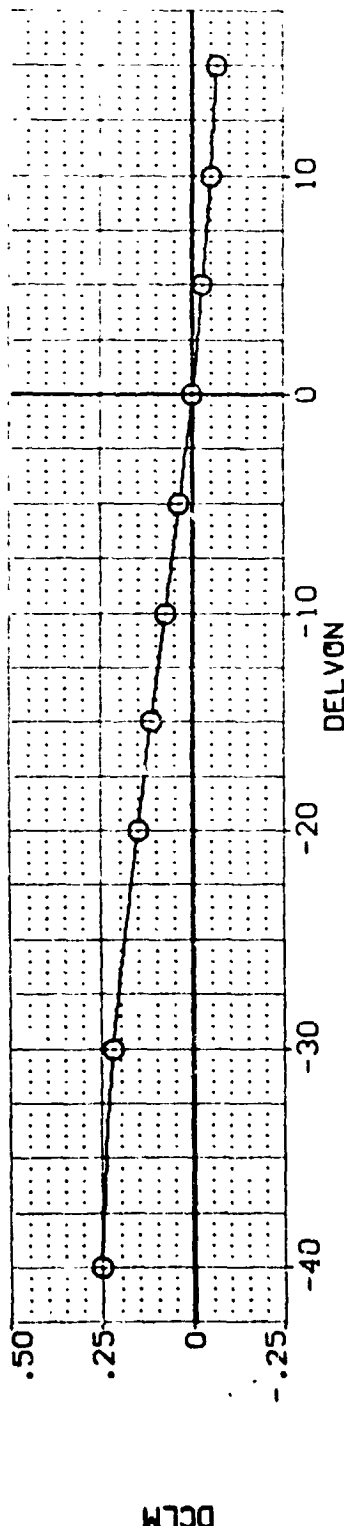
**INCHES**

**INCHES**

**INCHES**

**INCHES**

**SCALE**

FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND  $H/BW = 0.125$





SYMBOL  
O

0A628 B26C9G15M7F8 W116E28V8R5X9 (10Z034)

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	5.000	MACH	.200	BETA	.000	DATASET	DELTON	SREF	50. FT.
BOFLAP	-12.000	AIRLON	.000	DELTON	-40.000	10Z033	-30.000	LREF	INCHES
RUDDER	.000	SPOBRK	25.000	DELTON	-20.000	10Z031	-15.000	BREF	INCHES
H/BW	.125			DELTON	-10.000	10Z030	-5.000	YMRP	INCHES
				DELTON	10.000	10Z023	15.000	ZMRP	INCHES
						10Z025		SCALE	SCALE

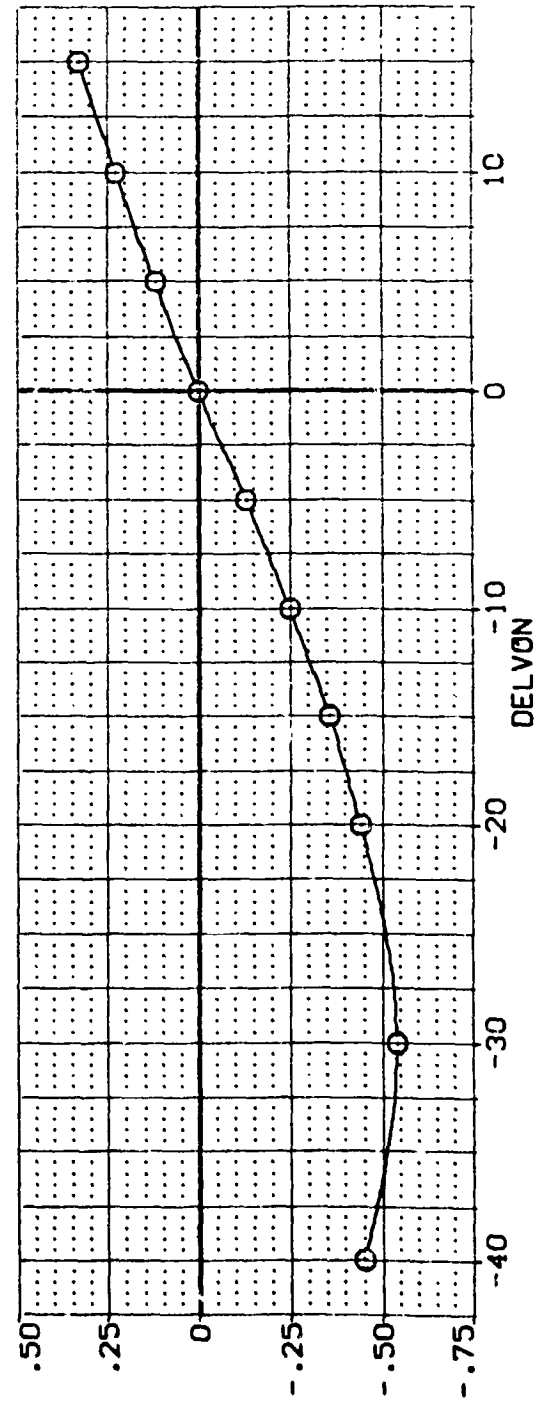
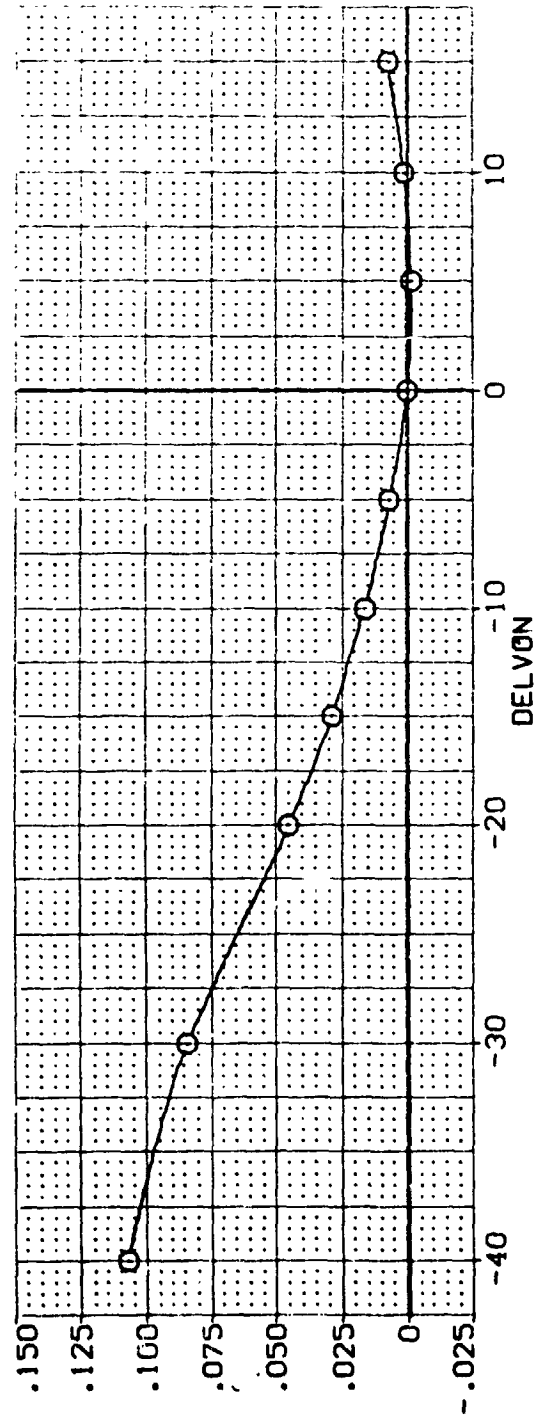


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ034)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		MACH	BETA	AIRLON	SPDRK	DELTON	DATASET	DELTON	SREF	4.4119	50. FT.
O	10.000	BOFLAP	-12.000	AIRLON		-40.000	1DZ033	-30.000	LREF	19.2299	INCHES
		RUDER	.000	SPDRK	25.000	-20.000	1DZ031	-15.000	BREF	37.9359	INCHES
		H/BV	.125			-10.000	1DZ030	-5.000	XMRP	43.5974	INCHES
						10.000	1DZ023	5.000	ZMRP	.0000	INCHES
							1DZ029	15.000	SCALE	15.1875	INCHES
										.0405	SCALE

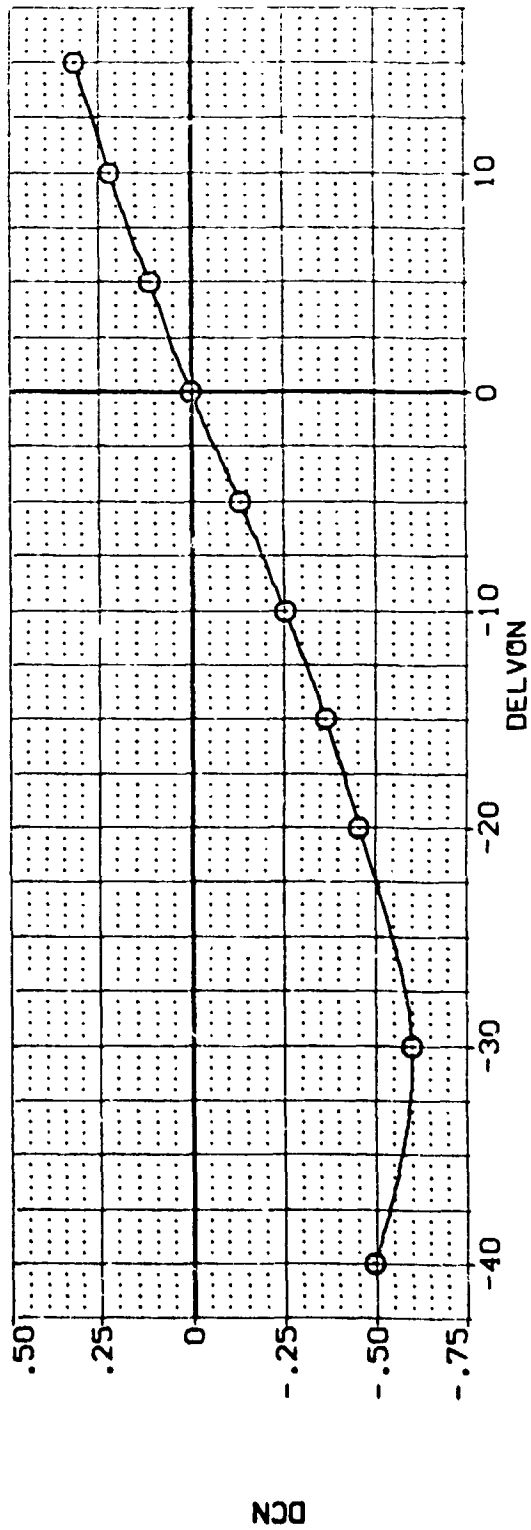
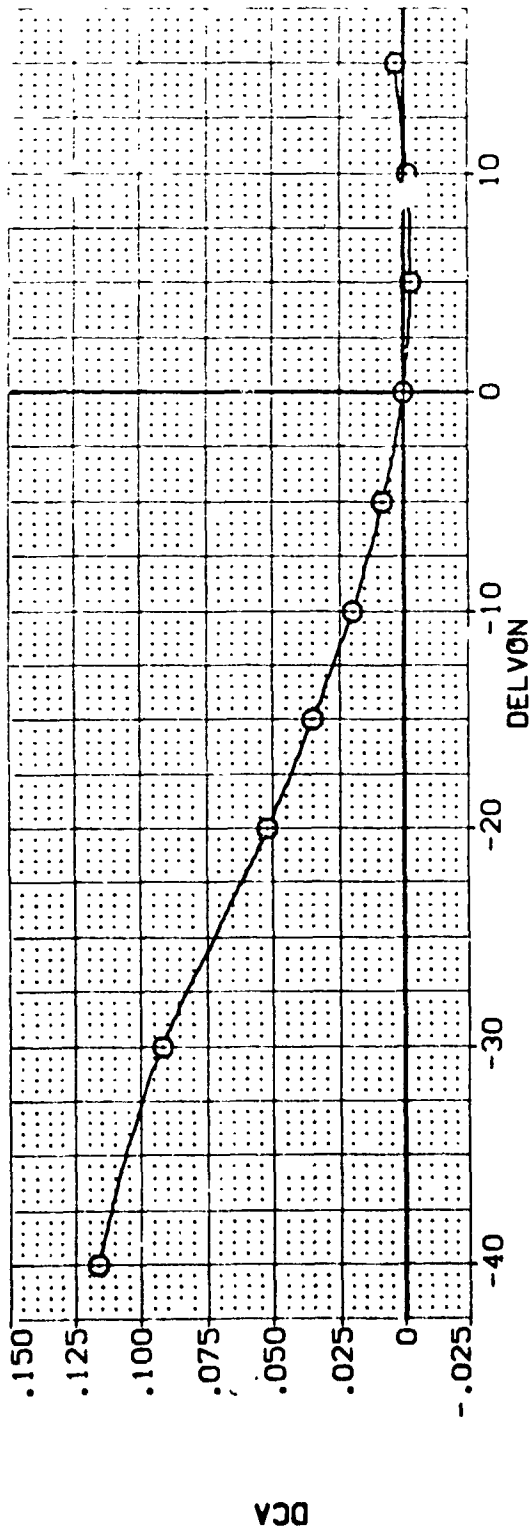


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

0A62B B26C9G15M7F8 W116E28V8R5X9

(1DZ034)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	15.000		.200 BETA	DELTON	SREF SQ.FT.
		BDFLAP	-12.000 AILRON	.000 1DZ034	LREF INCHES
		RUDDER	.000 SPOBRK	.000 1DZ032	BREF INCHES
		H/BW	.125	25.000 1DZ027	XMRP INCHES
				-10.000 1DZ021	YMRP INCHES
				10.000 1DZ029	ZMRP INCHES
					SCALE
					.0405

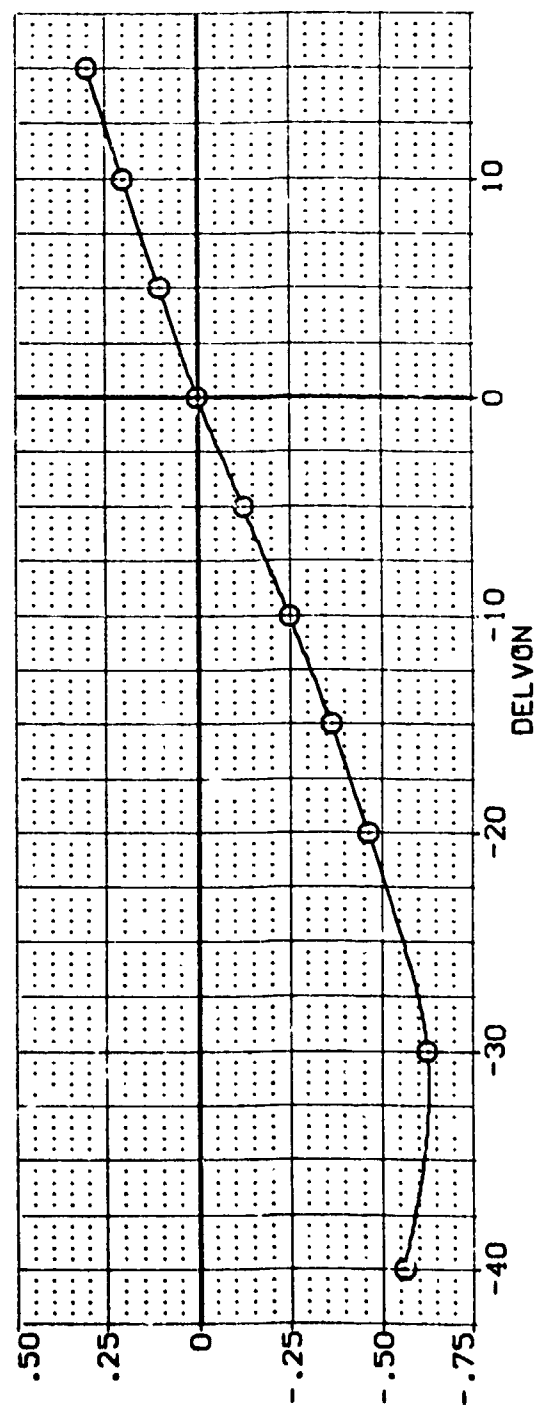
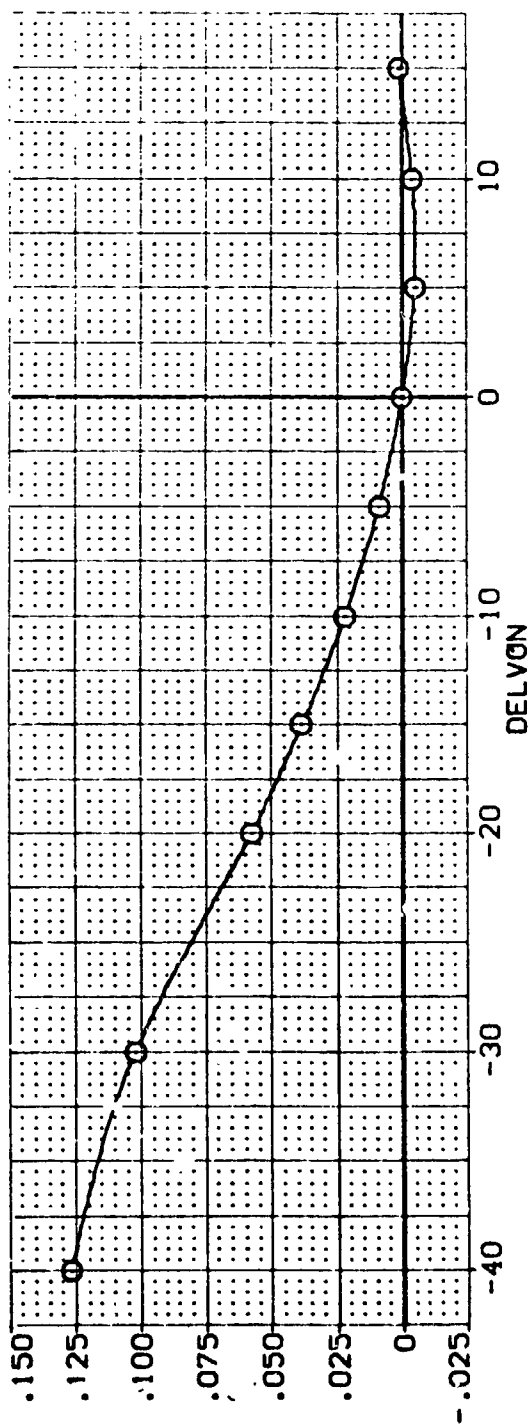


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

SYMBOL  
O



PAGE 88

(1DZ034)

0A62B B26C9G15M7F8 W116E28V8R5X9

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	HAC-1	BETA	AILRON	SPDRK	W/BV	DEL VON	DEL VON	SREF	SCALE
O	25.000	.200	.000	.000	.000	.000	10.000	10.000	4.4119	0.0405
									19.2293	INCHES
									37.9359	INCHES
									43.5974	INCHES
									0.000	INCHES
									15.1875	INCHES
									0.000	SCALE

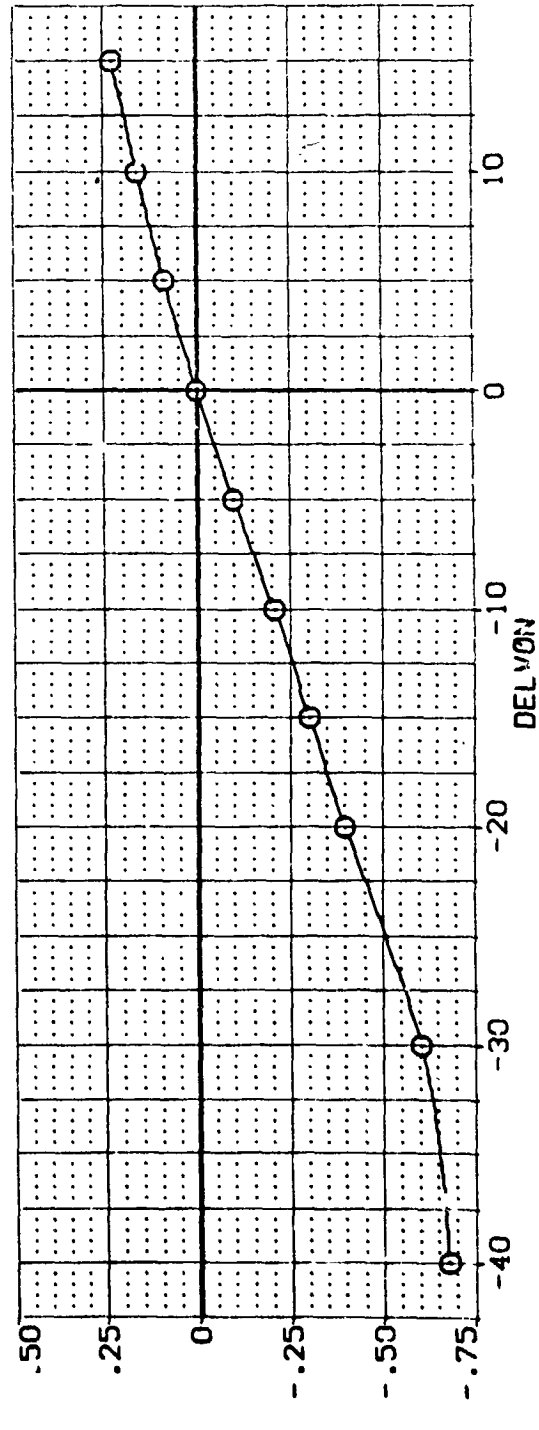
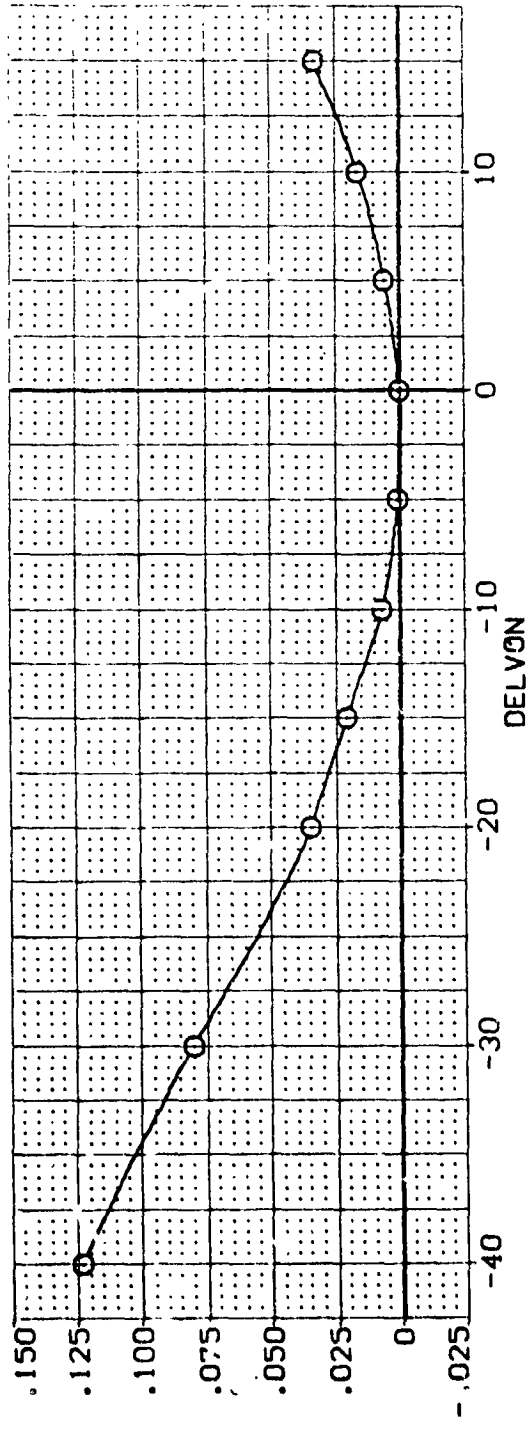


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

0A62B B26C9G15M7F8 W1.6E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
○	20.000	MACH	BETA	.000	DELTON	SREF	4.119	SO. FT.
		BOFLAP	AIRLON	.000	DELTON	LREF	19.2299	INCHES
		SLUDER	SPOBRK	25.000	DELTON	BREF	37.9359	INCHES
		W/BV		.125	DELTON	XRRP	43.5974	INCHES
					DELTON	YRRP	.0000	INCHES
					DELTON	ZRRP	15.1875	INCHES
					DELTON	SCALE	.0405	SCALE

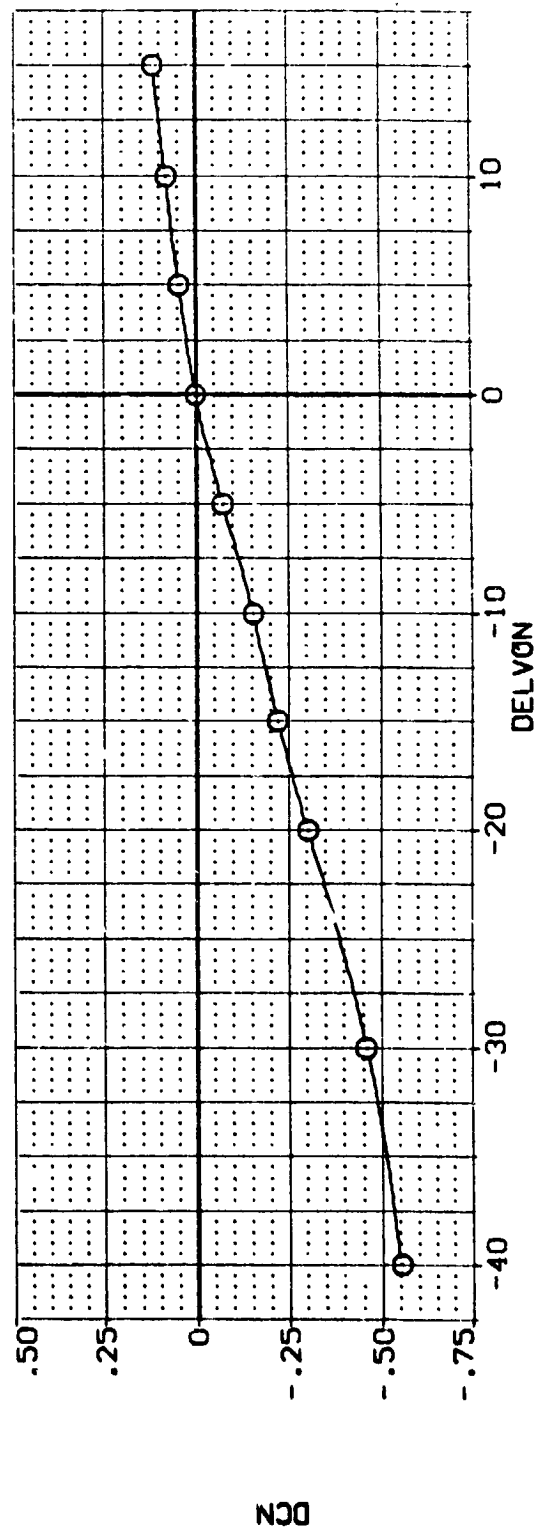
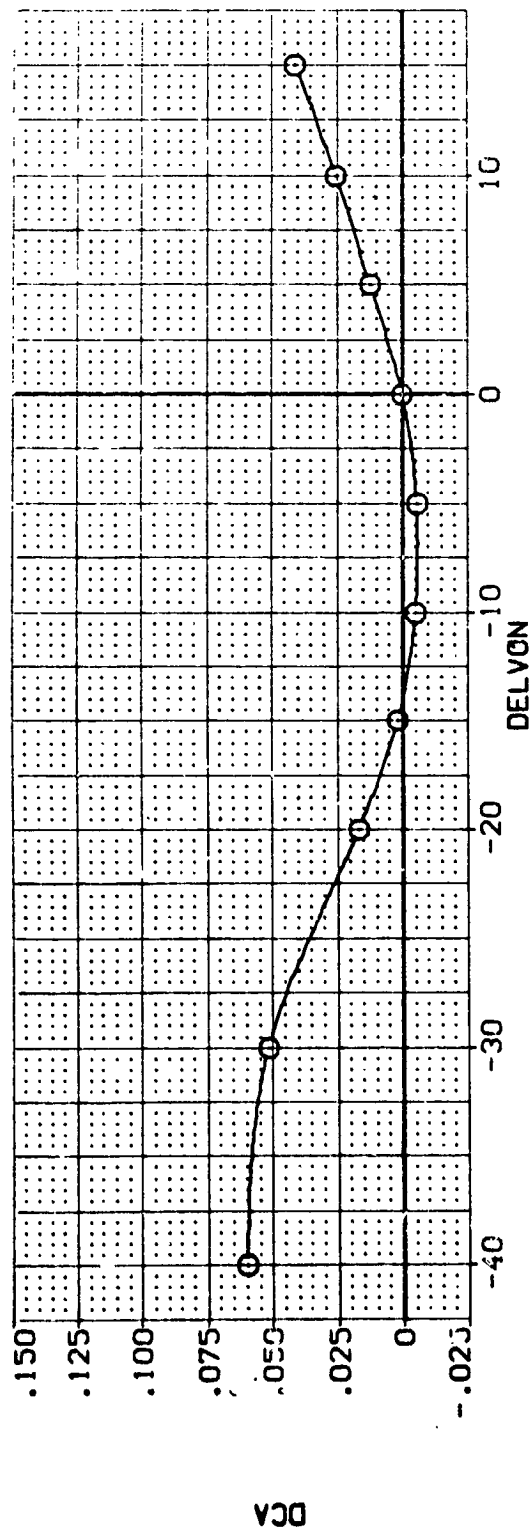


FIG 6 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.125

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02028)	0A628 B26C9G15H7F8 V116E26V8R5X9	-10.000	.125	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02022)	0A628 B26C9G15H7F8 V116E26V8R5X9	.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(B02024)	0A628 B26C9G15H7F8 V116E26V8R5X9	5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(B02026)	0A628 B26C9G15H7F8 V116E26V8R5X9	15.000	.125	25.000	-12.000	XPRP 43.5974 INCHES
						YPRP .0000 INCHES
						ZPRP 15.1875 INCHES
						SCALE .0405

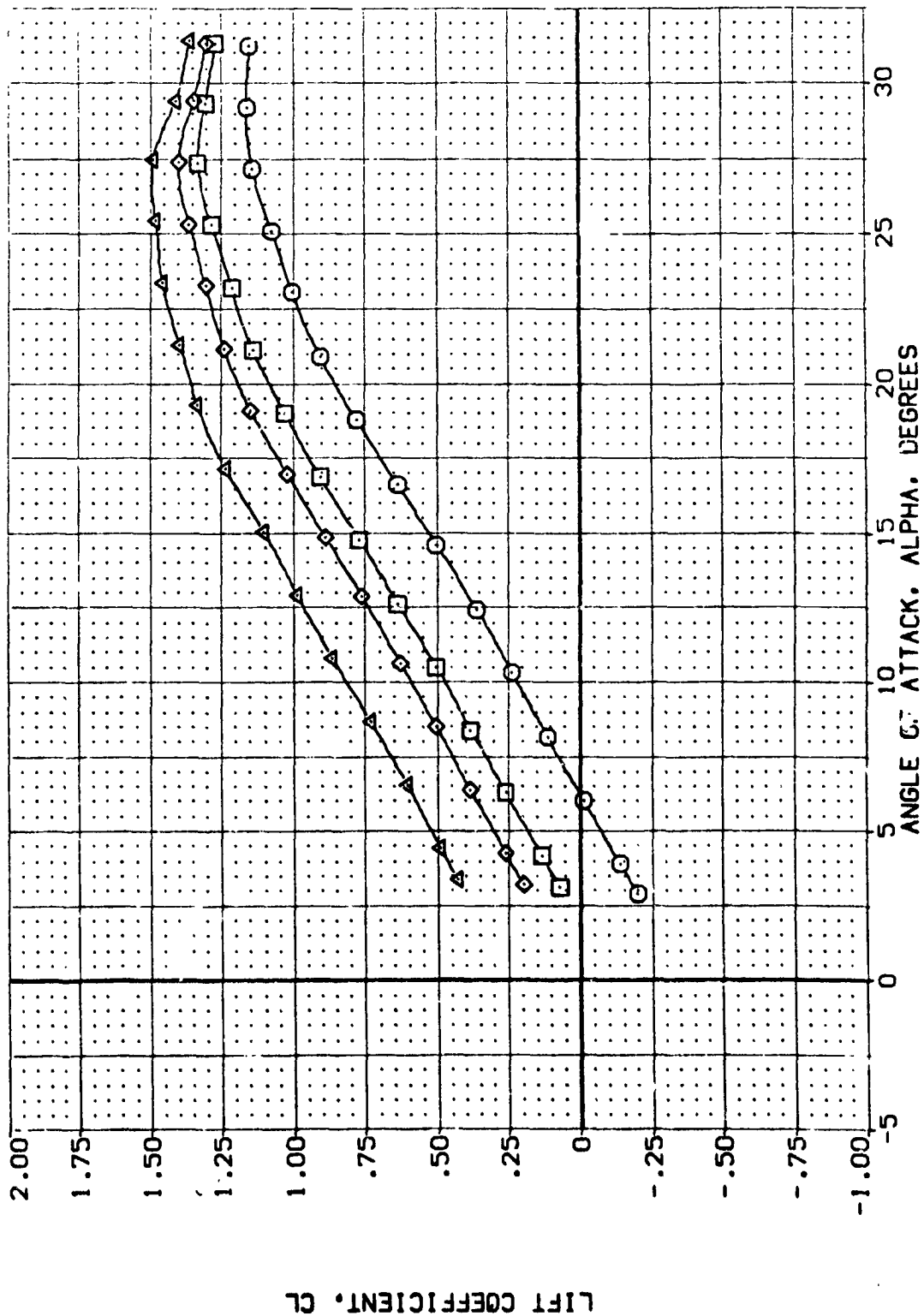


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802020)	0A628 B26C9G15M7F8 V116E26V8R5X9	-10.000	.125	25.000	-12.000	SREF 4.4119 SQ.FT.
(802022)	0A628 B26C9G15M7F8 V116E26V8R5X9	.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(802024)	0A628 B26C9G15M7F8 V116E26V8R5X9	5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(802026)	0A628 B26C9G15M7F8 V116E26V8R5X9	15.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

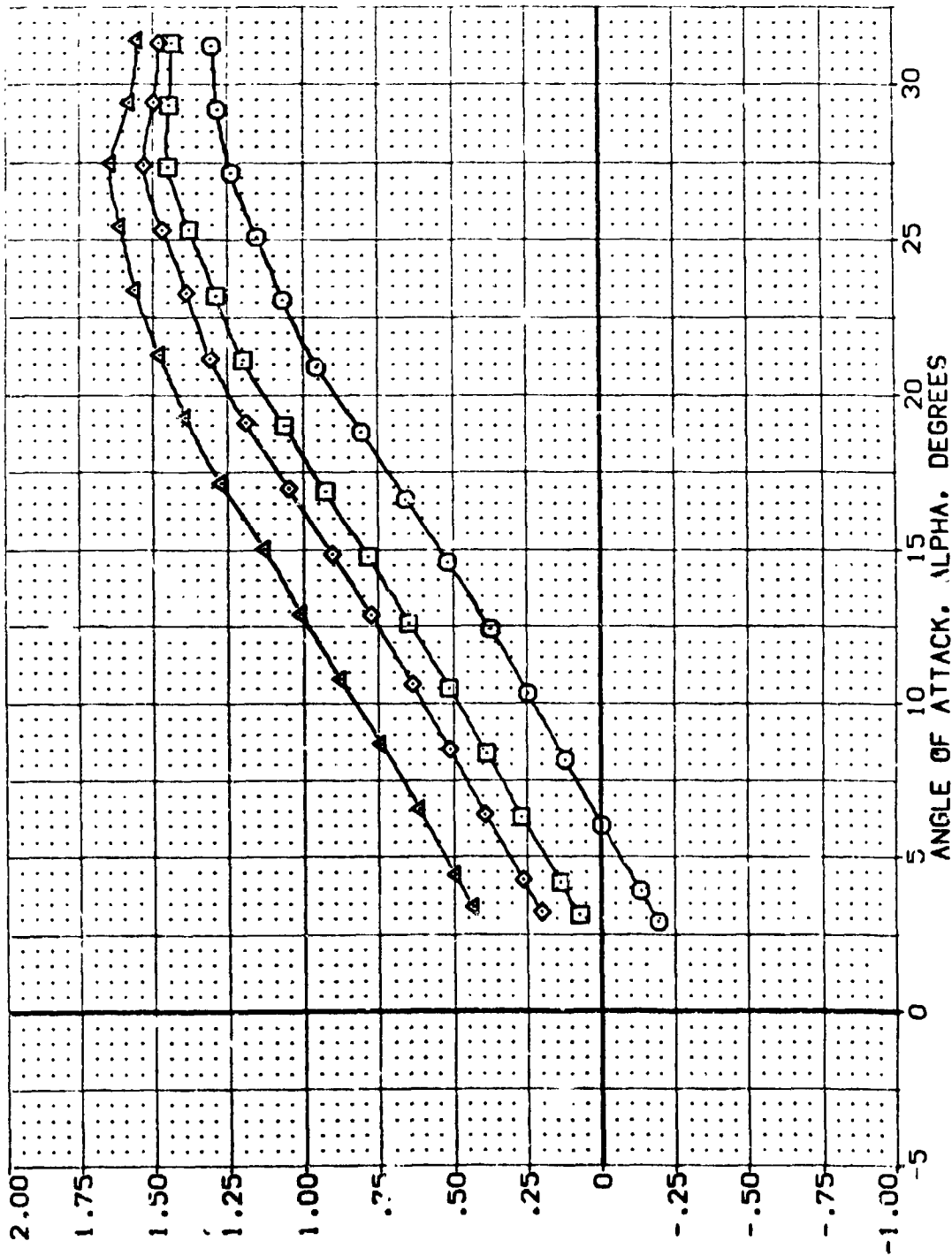


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOROK	BOFLAP	REFERENCE INFORMATION
(B02028)	0A628 B26C5G1 SH7F8	-10.000	.125	25.000	-12.000	SREF 4.4119 INCHES
(B02022)	0A628 B26C5G1 SH7F8	.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(B02024)	0A628 B26C5G1 SH7F8	5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(B02026)	0A628 B26C5G1 SH7F8	15.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

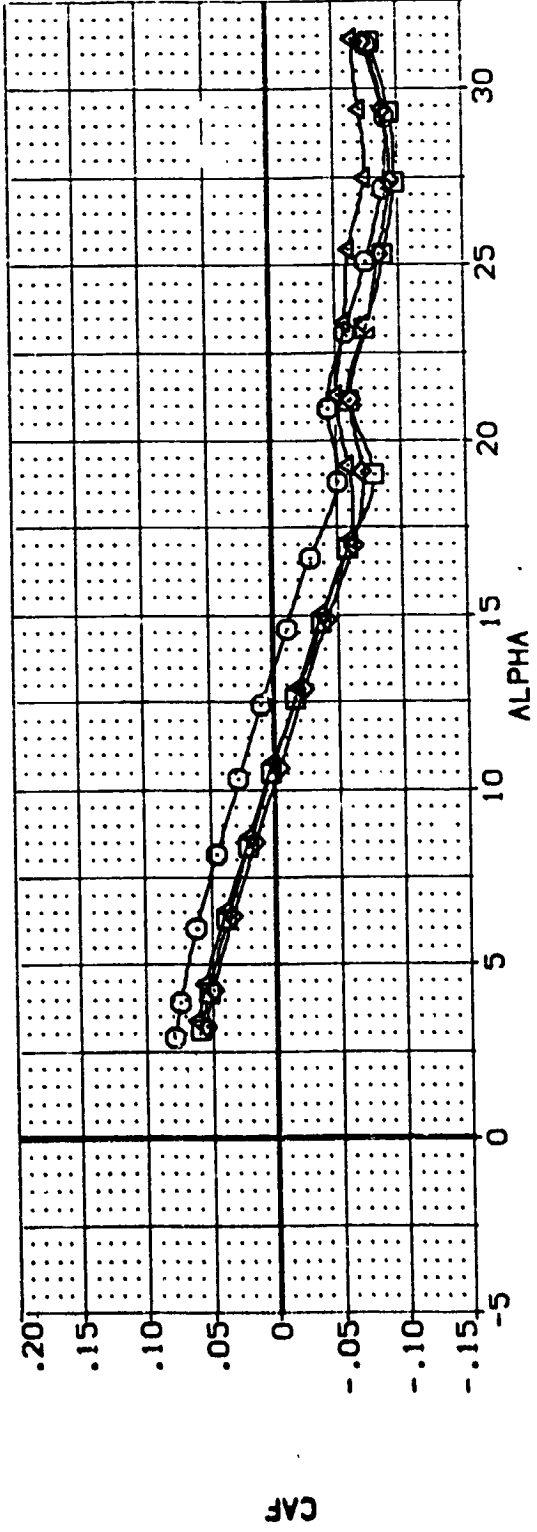
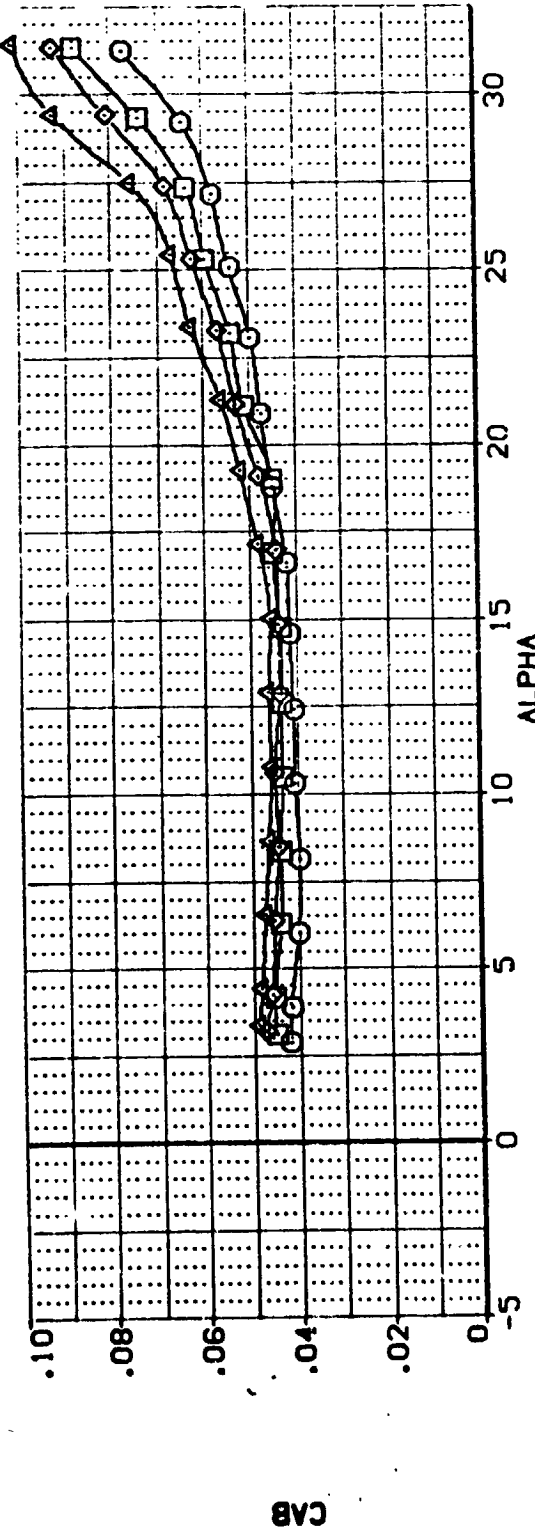
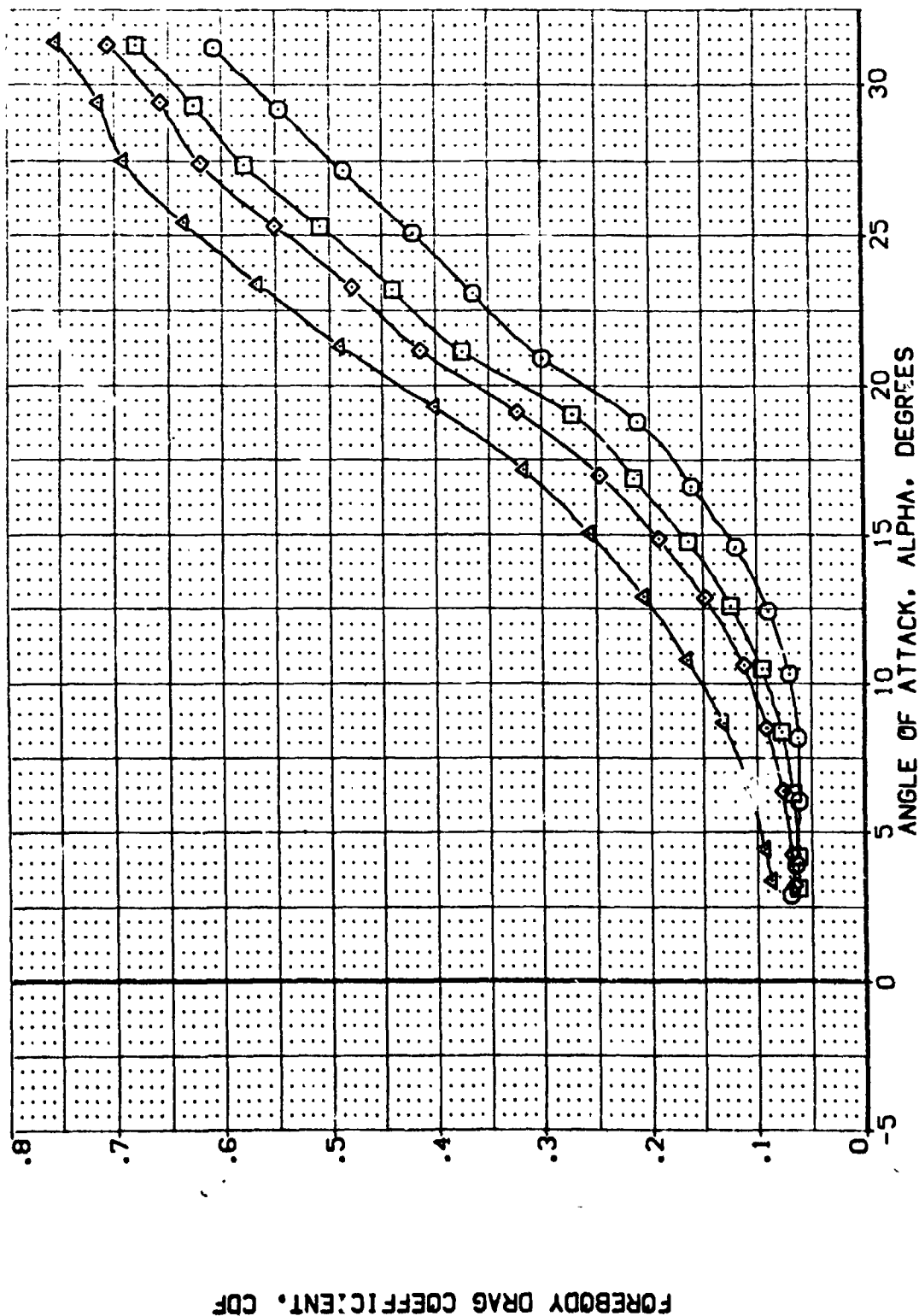


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

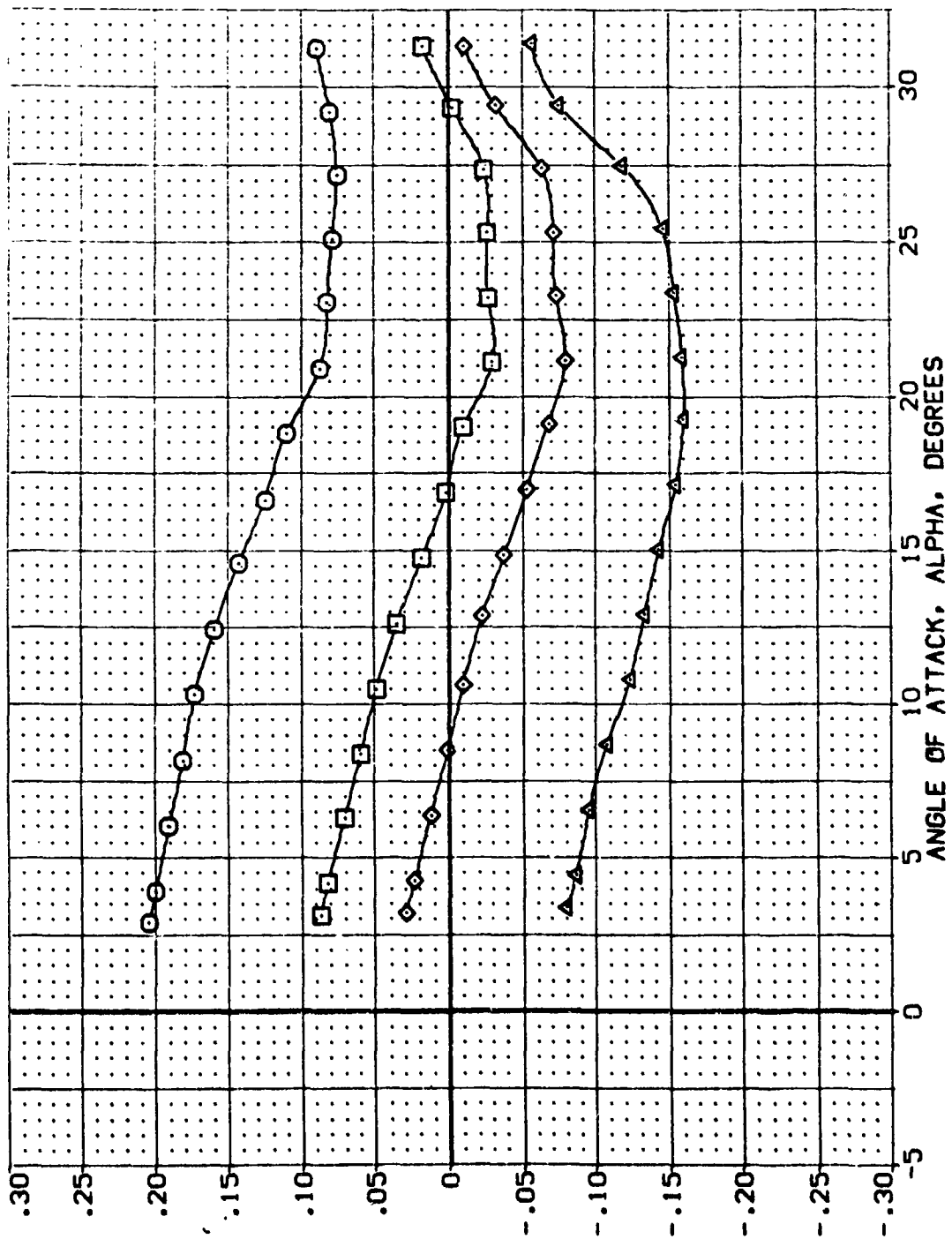
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BDFLAP	REFERENCE INFORMATION
(802028)	QAG28 B26C961 SM7F8	-10.000	.125	25.000	-12.000	SREF 4.4119 50.FT
(802022)	QAG28 B26C961 SM7F8	.000	.125	25.000	-12.000	LREF 19.2299 INCHES
(802024)	QAG28 B26C961 SM7F8	5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(802026)	QAG28 B26C961 SM7F8	15.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 SCALE





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02028)	0A528 B26C9G1SMTF8 V116E26VBR5X9	-10.000	.125	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(B02022)	0A528 B26C9G1SMTF8 V116E26VBR5X9	.000	.125	25.000	-12.000	LREF 19.2799 INCHES
(B02024)	0A528 B26C9G1SMTF8 V116E26VBR5X9	5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
(B02026)	0A528 B26C9G1SMTF8 V116E26VBR5X9	15.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405



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FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125  
(A)MACH = .20

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BD2020)	□	04628 826C9G1 SMT8 VI16E26 895X9
(BD2022)	◇	04628 826C9G1 SMT8 VI16E26 895X9
(BD2024)	△	04628 826C9G1 SMT8 VI16E26 895X9
(BD2026)	○	04628 826C9G1 SMT8 VI16E26 895X9

ELEVON	H/BW	SPOBOK	BOFLAP	REFERENCE INFORMATION
-10.000	.125	25.000	-12.000	SREF 4.4119 50.FT. INCHES
.000	.125	25.000	-12.000	LREF 19.2299 INCHES
5.000	.125	25.000	-12.000	BREF 37.9359 INCHES
15.000	.125	25.000	-12.000	XMRP 43.5974 INCHES
				YMRP .0000 INCHES
				ZMRP 15.1875 INCHES
				SCALE .0405 INCHES

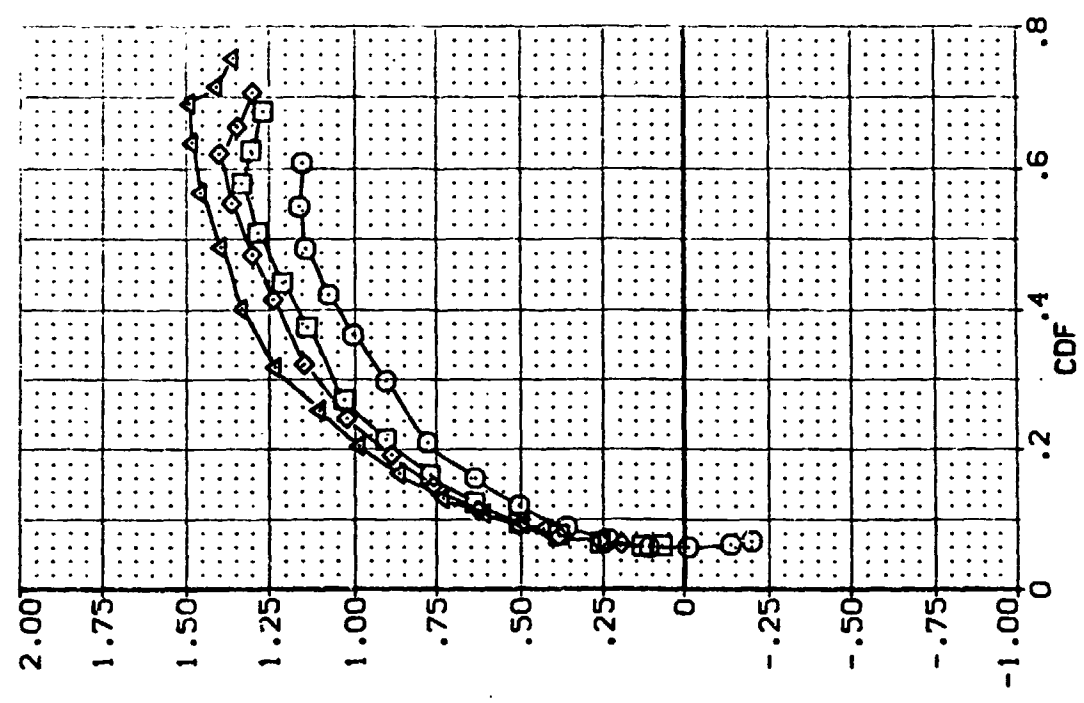
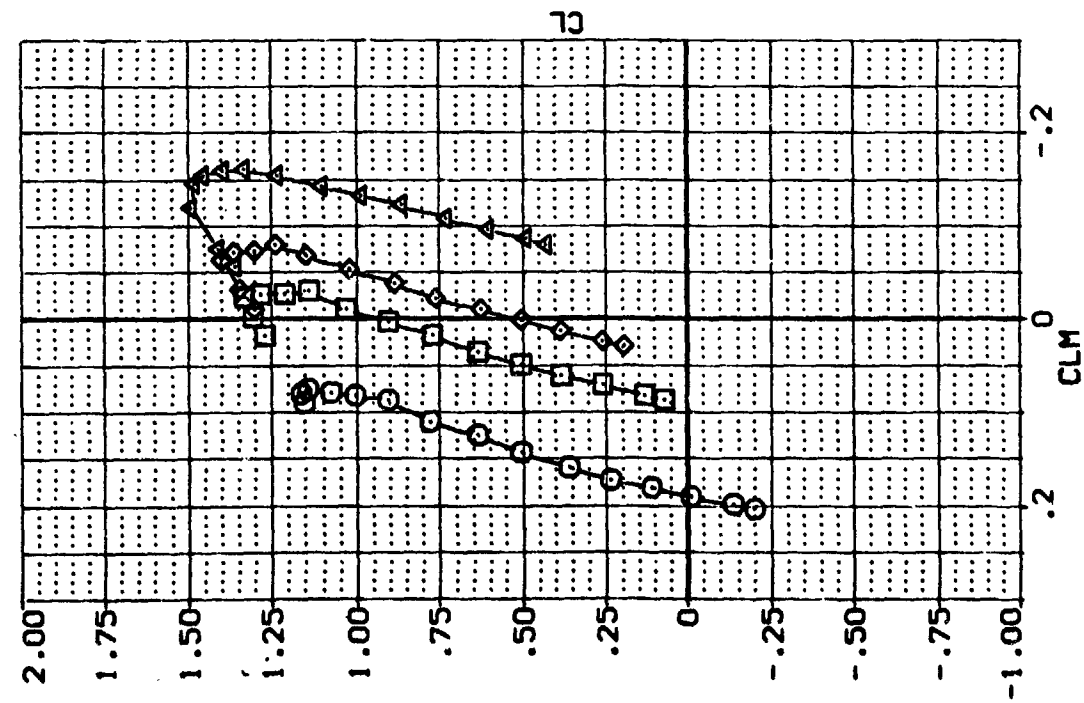


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

(A)MACH = .20



REFERENCE INFORMATION			
SREF	4.4119	SQ.FT.	
LREF	19.2299	INCHES	
BREF	37.9359	INCHES	
XMRP	43.5974	INCHES	
YMRP	.0000	INCHES	
ZMRP	15.1875	INCHES	
SCALE	.0405	INCHES	

ELEVON	H/BW	SPDBRK	BOFLAP
-10.000	.125	25.000	-12.000
.000	.125	25.000	-12.000
5.000	.125	25.000	-12.000
15.000	.125	25.000	-12.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B02028)	0A628 B26C9G15H7F8 V116E26V8R5X9
(B02022)	0A628 B26C9G15H7F8 V116E26V8R5X9
(B02024)	0A628 B26C9G15H7F8 V116E26V8R5X9
(B02026)	0A628 B26C9G15H7F8 V116E26V8R5X9

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

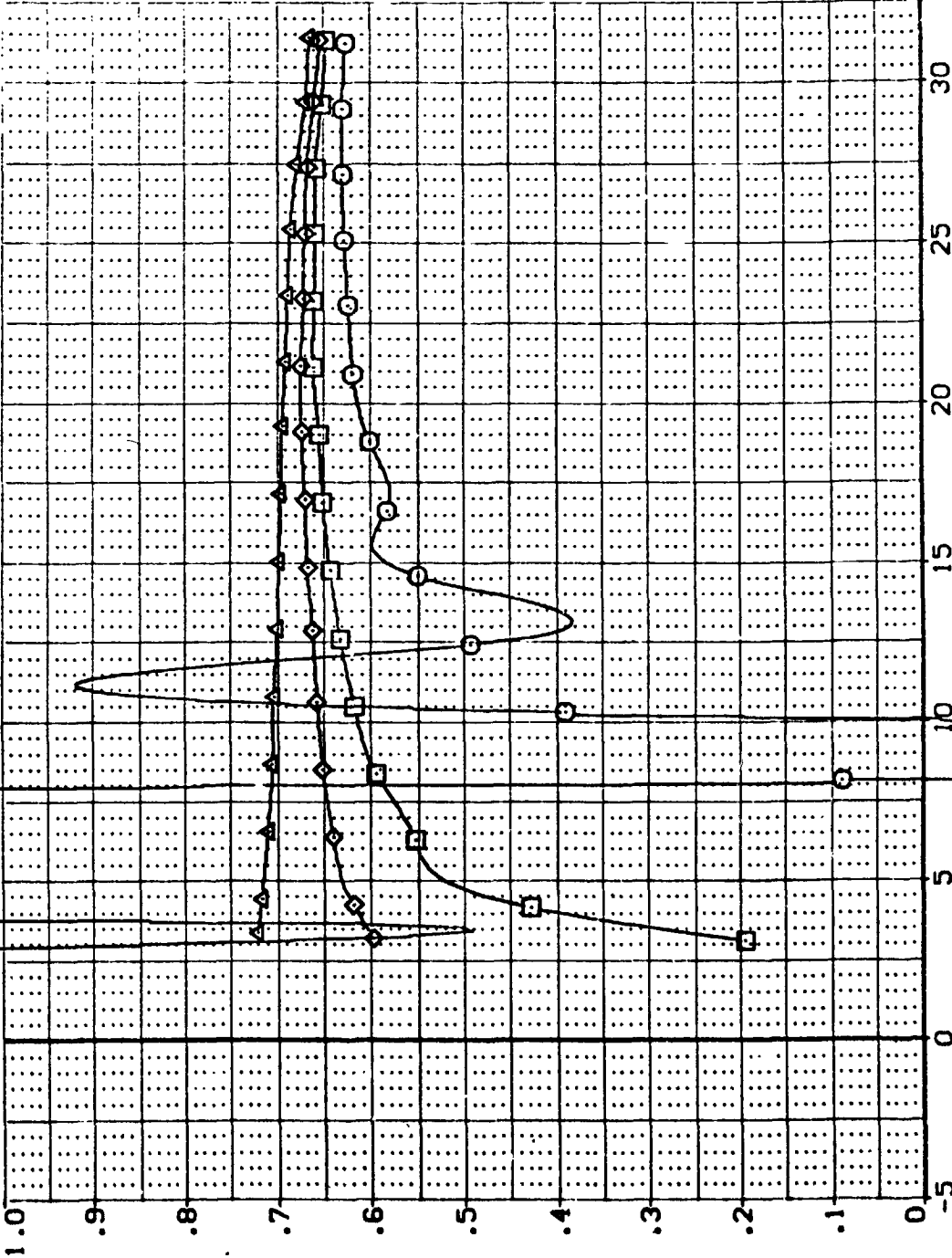


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802028)	04628 826C5G15W7F8 V116E26V8R5X9	-10.000	25.000	-12.000	SREF 4.4119 SO.FT.
(802022)	04628 826C5G15W7F8 V116E26V8R5X9	.000	25.000	-12.000	LREF 19.2299 INCHES
(802024)	04628 826C5G15W7F8 V116E26V8R5X9	5.000	25.000	-12.000	BREF 37.9359 INCHES
(802026)	04628 826C5G15W7F8 V116E26V8R5X9	15.000	25.000	-12.000	XMRP 43.5974 INCHES
					YMRP .0000 INCHES
					ZMRP 15.1875 INCHES
					SCALE .0405

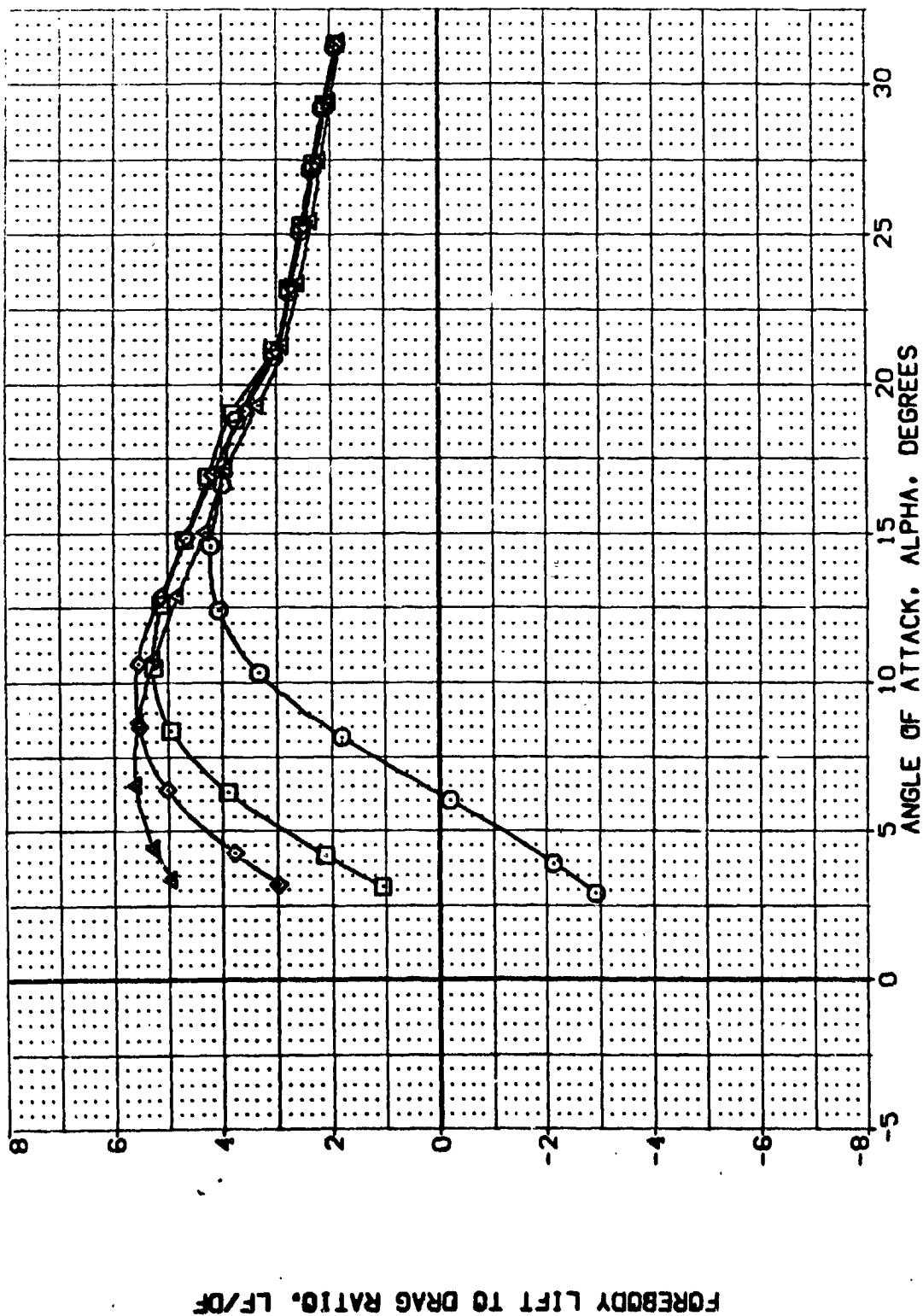


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

(A)MACH = .20



0A62B B26C9G15M7F8 W116E26V8R5X9 (1DZ028)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	.000	BDFLAP	BETA -12.000	DELTON	SO.FT. 4.4119
		RUDDER	AILRCH .000	DELTON	INCHES 19.2293
		H/BW	SPDRBK .000	DELTON	INCHES 37.9359
				DELTON	INCHES 43.5974
				DELTON	INCHES .0000
				DELTON	INCHES 15.1875
				DELTON	SCALE .0405

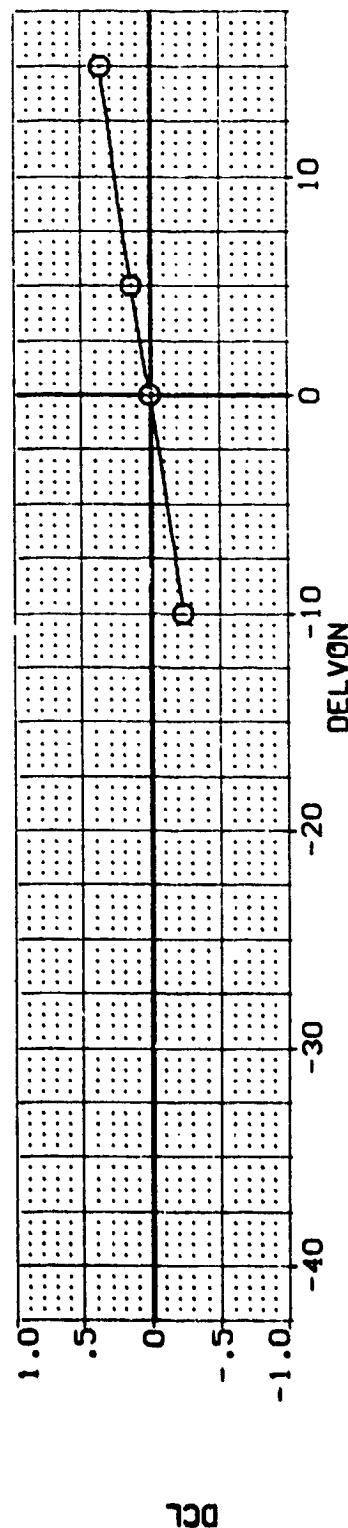
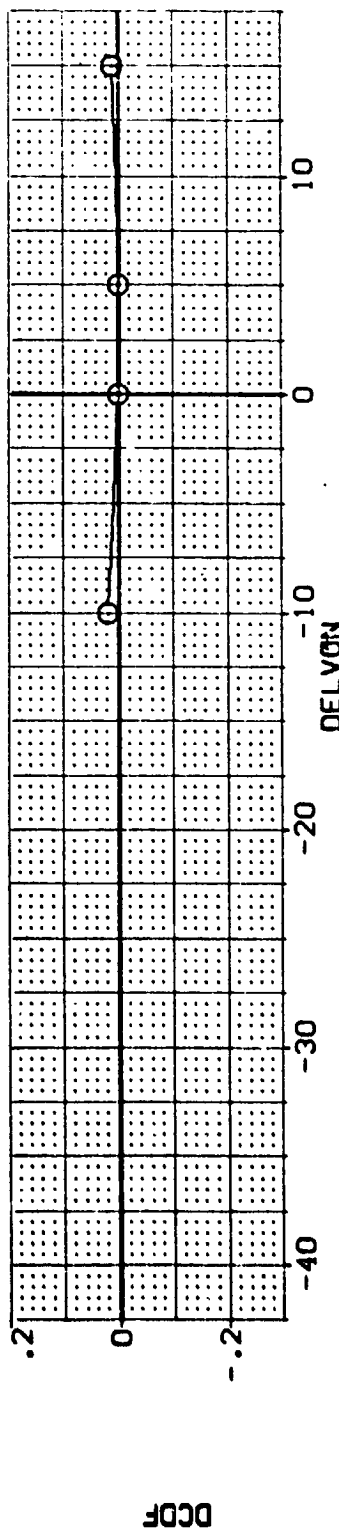
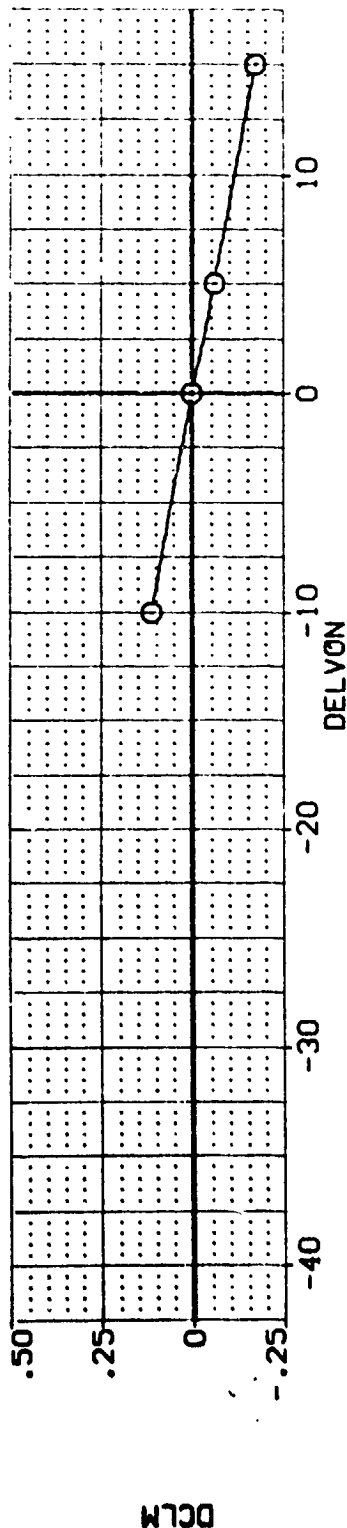


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125



(107028)

0A628 B26C9G15M7F8 W116E26V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	5.000	MACH <sup>+</sup> .200	BETA .000	DELVON SREF 4.4119 SQ.FT.
		EOLAP -12.000	AIRLOW .000	LREF 19.2689 INCHES
		RLOOR .000	SPORBK 25.000	BREF 27.9359 INCHES
		H/BV .125	DATSET 1DZ024	XMRP 43.5874 INCHES
			DATSET 1DZ026	YMRP .0000 INCHES
				ZMRP 15.1875 INCHES
				SCALE .0405 SCALE

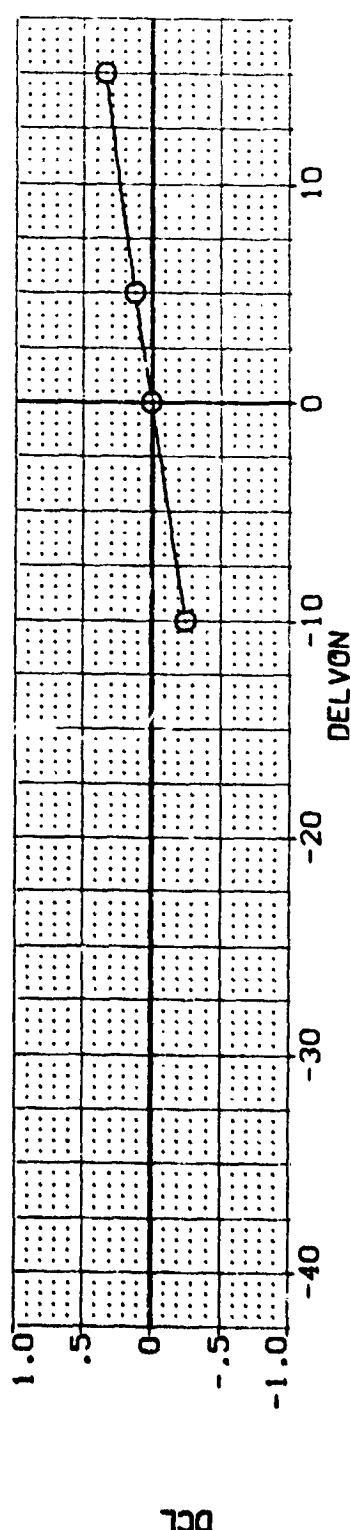
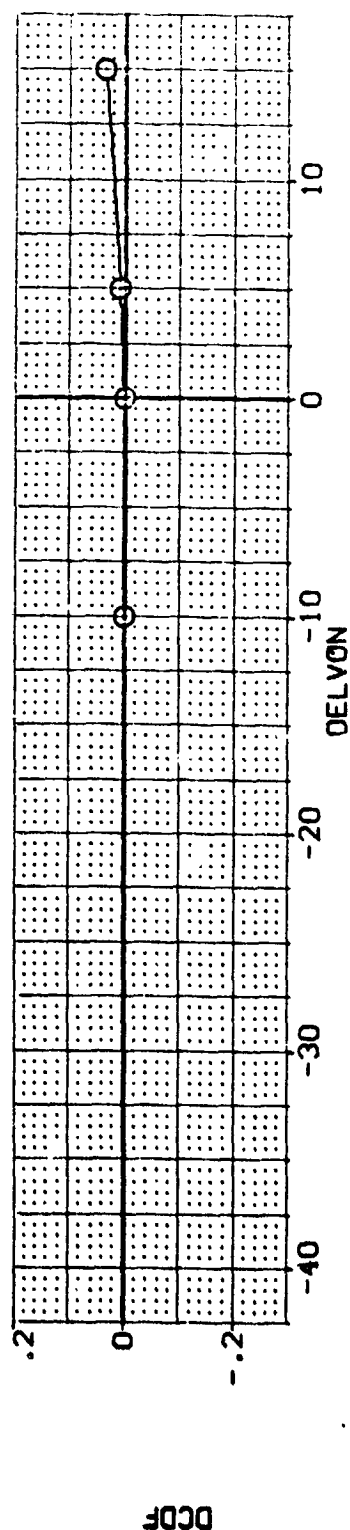
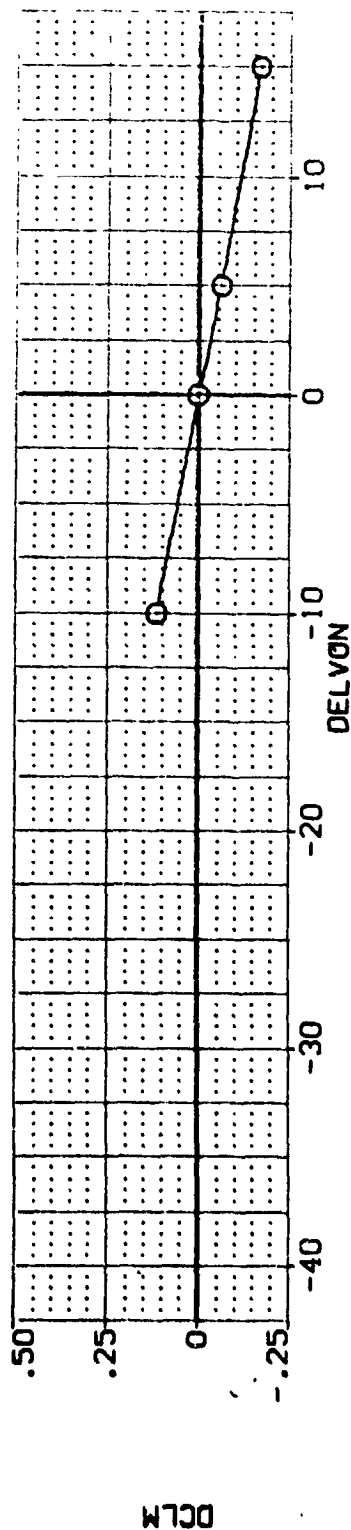


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125





0A628 B26C9G15M7F8 W116E26V8R5X9 (1DZ028)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	10.000		BETA -12.000 AILRON SP0BRK H/BW .125	DELVON -10.000 5.000	SREF 4.4119 LREF 19.2299 BREF 37.9359 XTRP 43.5974 YTRP .0000 ZTRP 15.1875 SCALE .0405

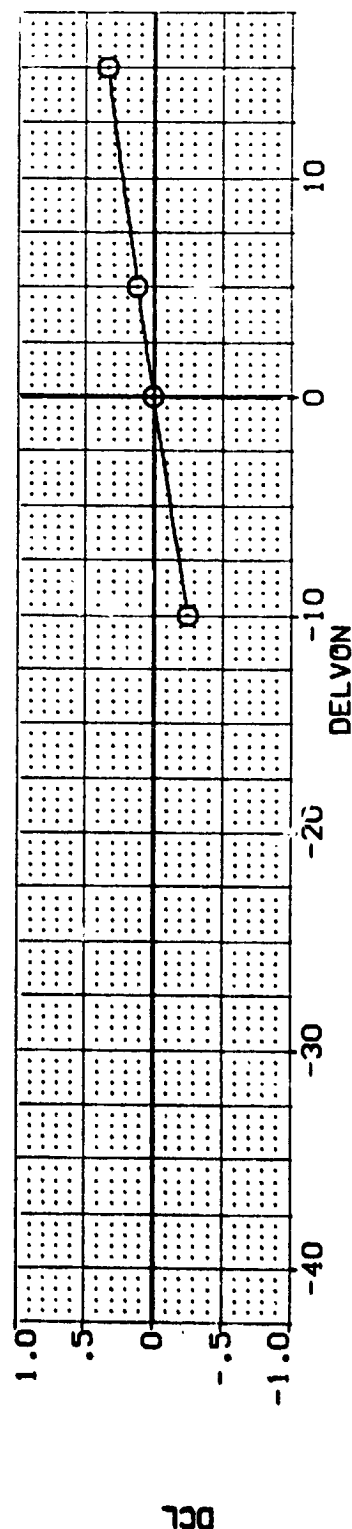
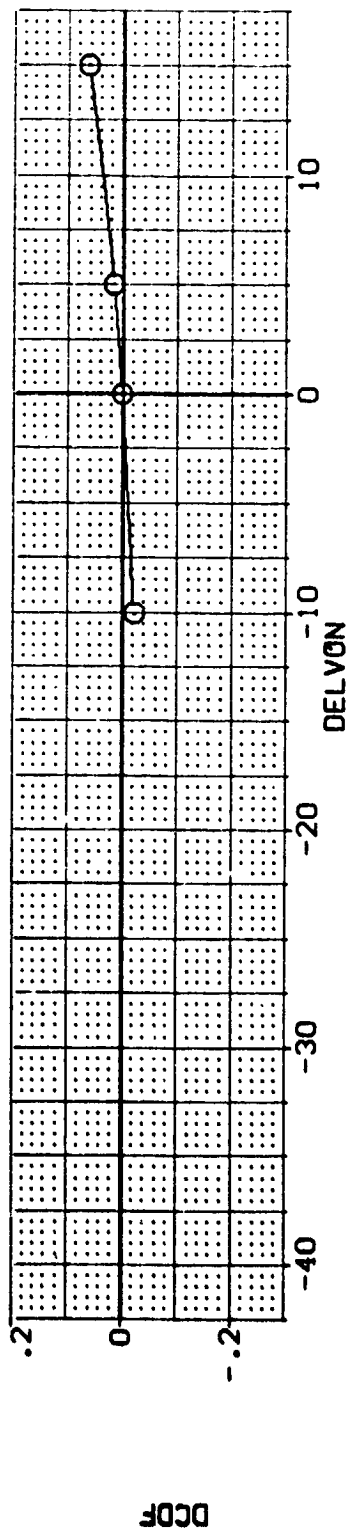
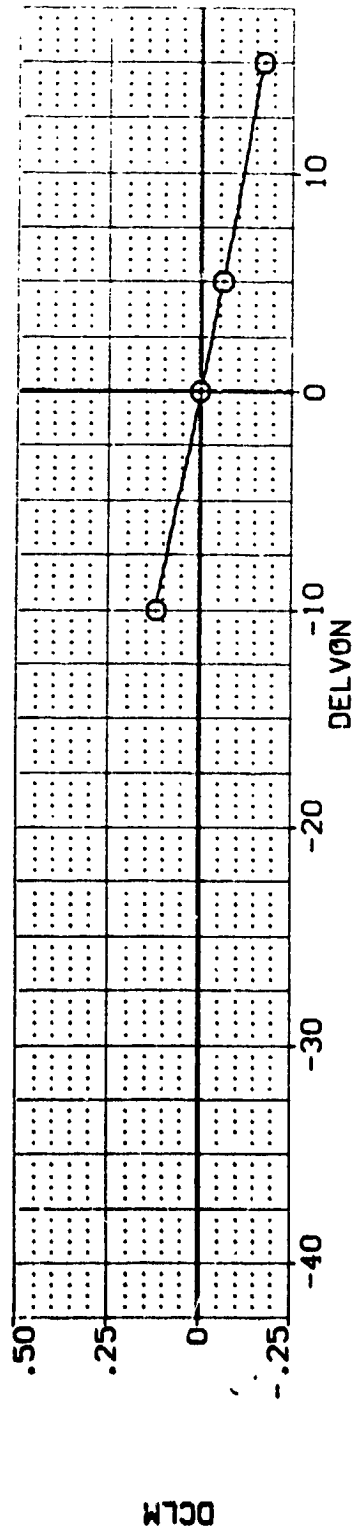


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125



(10Z028)

0A628 B26C9G15M7F8 W116E26V8R5X9

SYMBOL  
O

ALPHA  
15.000

HACH  
BDFLAP  
RUDDER  
H/BW

PARAMETRIC VALUES  
BETA  
AILERN  
SPDRK  
H/BW

DATA SOURCE  
DELTON  
DELTON  
DELTON  
DELTON

DATASET  
10Z028  
10Z024  
10Z026

DELTON  
DELTON  
DELTON  
DELTON

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE

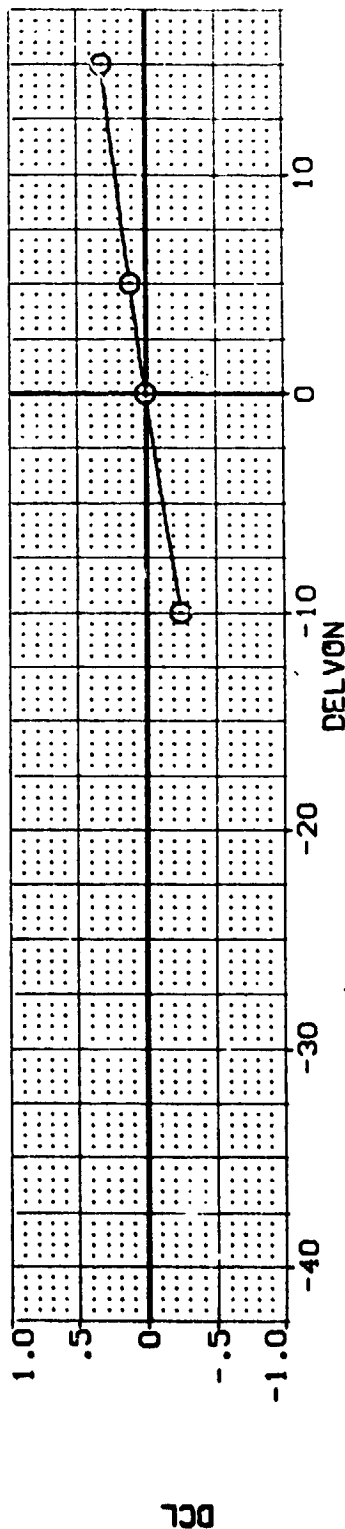
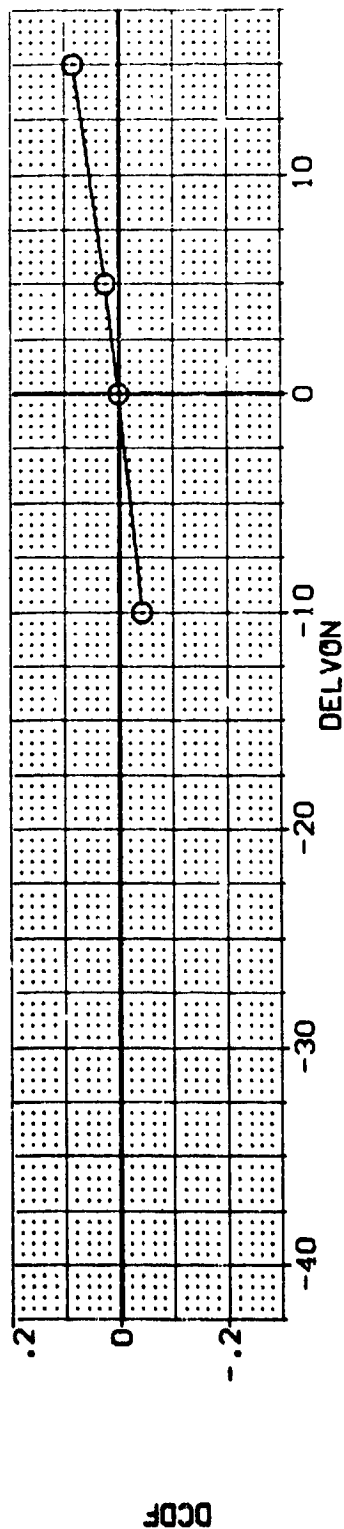
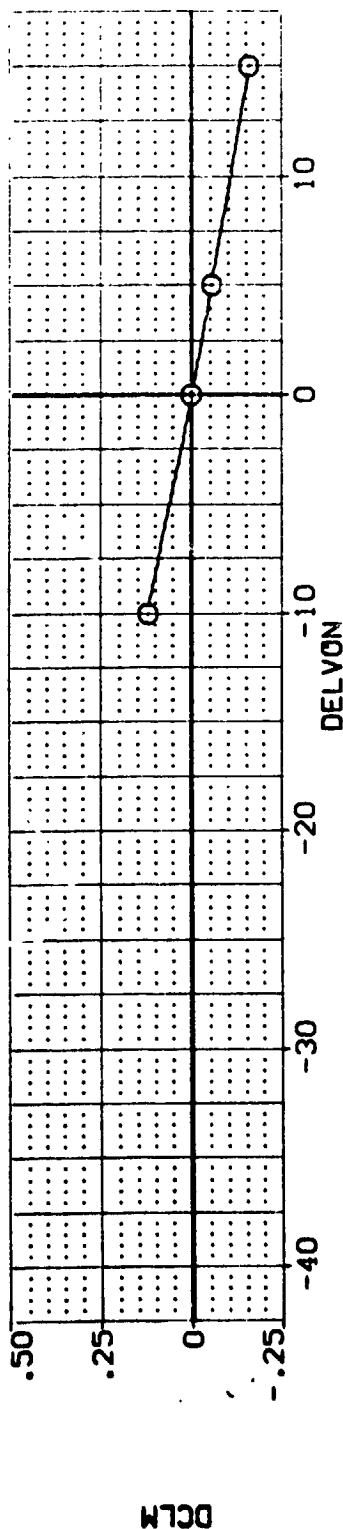


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

**D**

**0**



FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/W = 0.25

0A628 B26C9G15M7F8 W116E26V8R5X9 (1DZ028)

SYMBOL	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BETA	DELTON	DELTON	SREF	SO.FT.	INCHES	INCHES
O	25.000	EDFLAP	-12.000	10Z028	10Z022	LREF	4.4119	19.2288	37.9359
		RUDDER	.000	10Z024	10Z026	BREF	43.5974	.0000	.0000
		H/BW	.125			YMRP	15.1875	INCHES	INCHES
						ZMRP	.0405	SCALE	SCALE

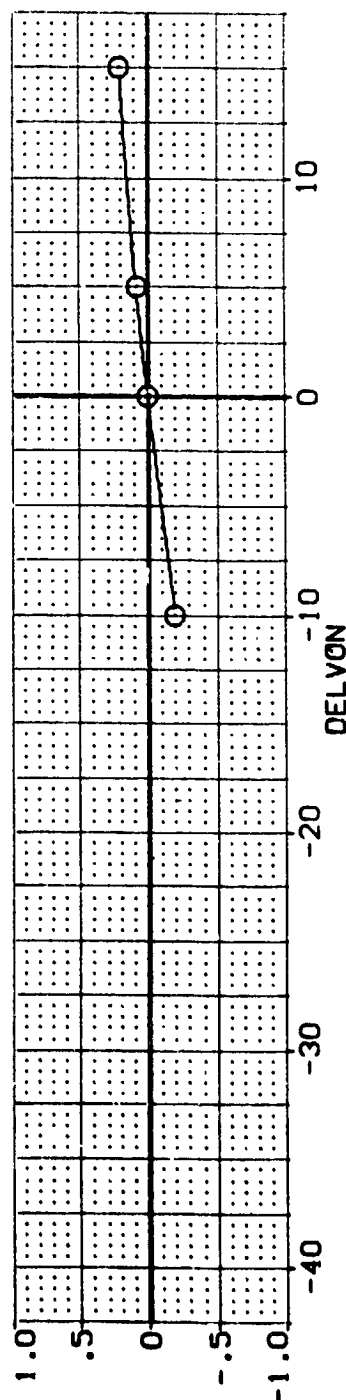
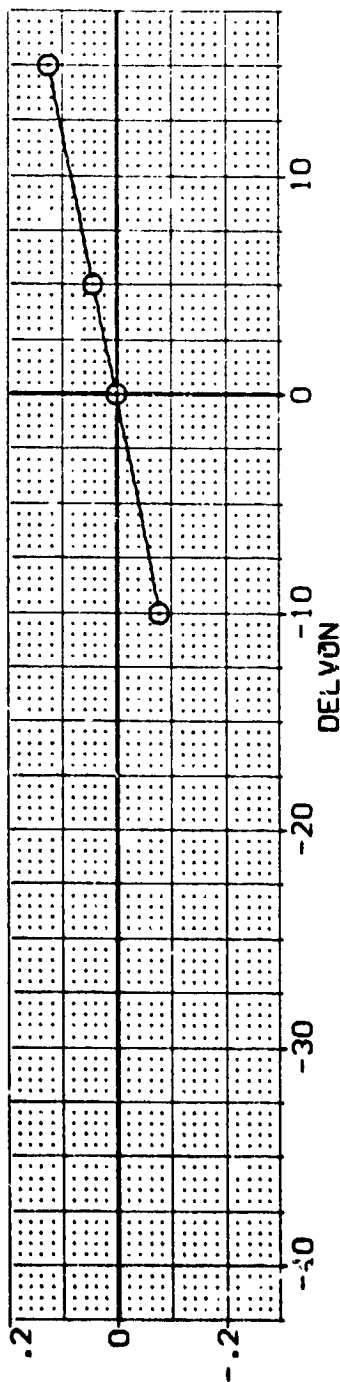
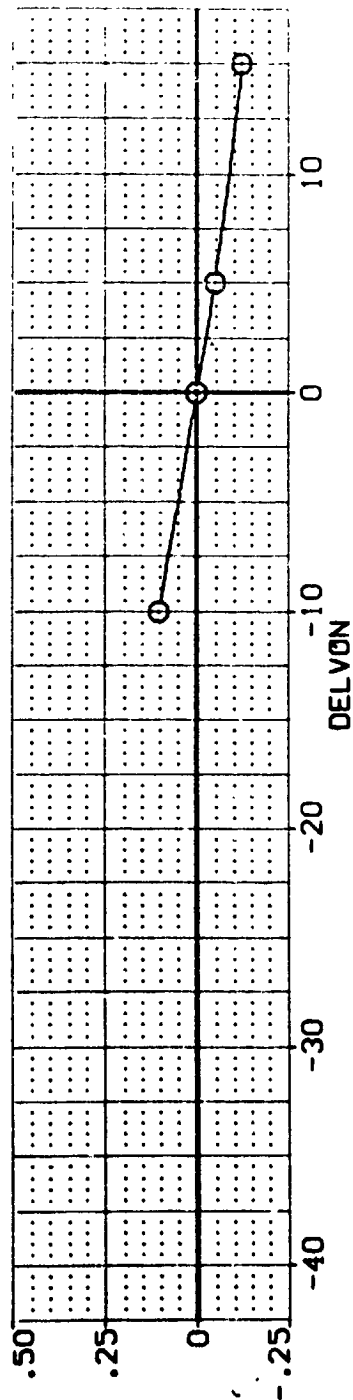


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

(1DZ028)

0A628 B26C9G15M7F8 W116E26V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	SREF	REFERENCE INFORMATION
0	30.000		BETA	.000	DELTON	1DZ028	.000	4.4119	SC.F.T.
			AIRLON	.000	DELTON	1DZ028	.000	19.2299	INCHES
			SPDRK	25.000	DELTON	1DZ024	5.000	37.9359	INCHES
			H/BW	.125				43.5974	INCHES
								.0000	INCHES
								15.1875	INCHES
								.0405	SCALE

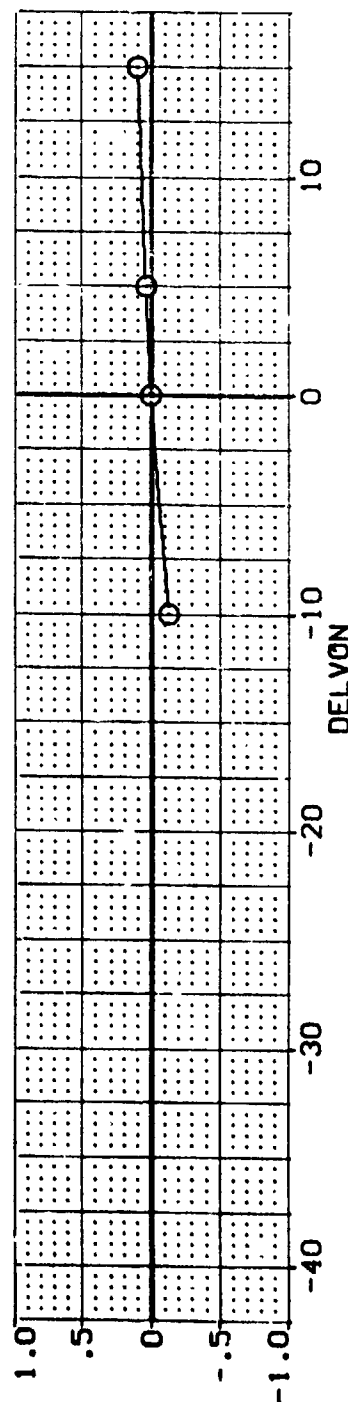
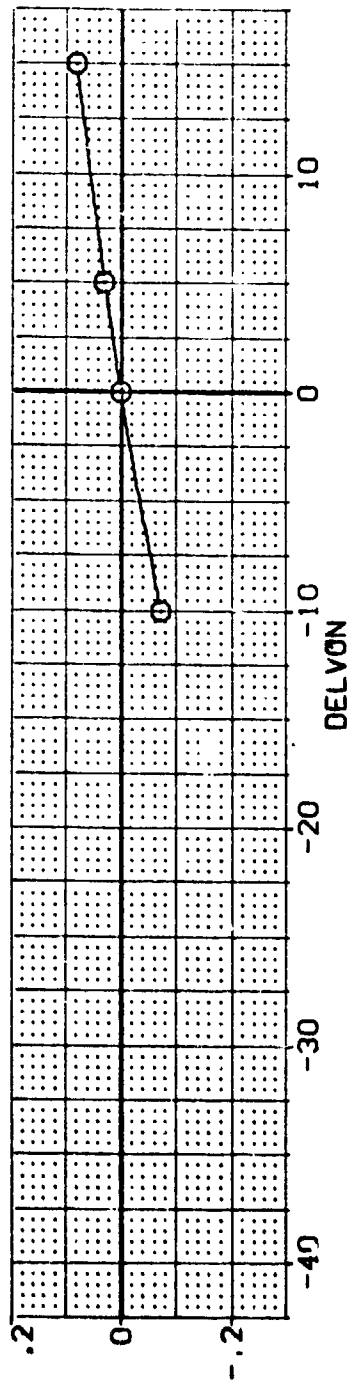
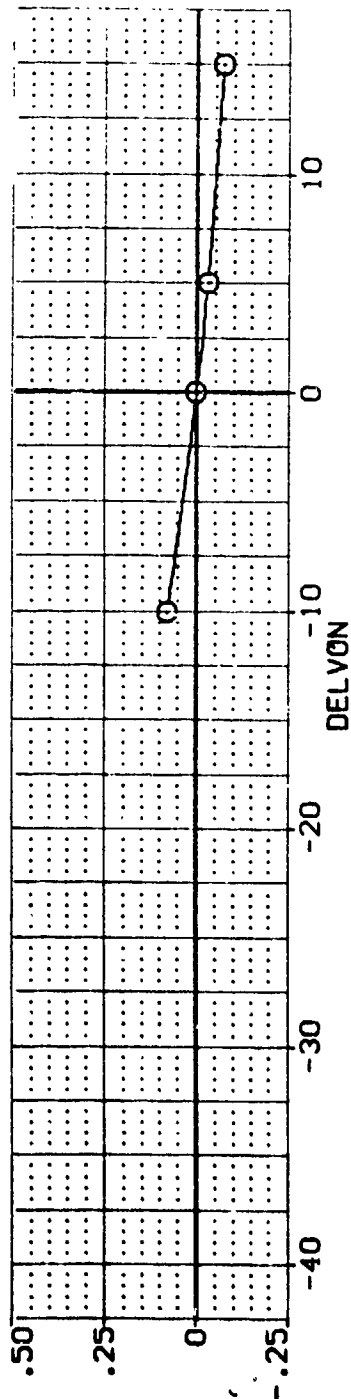


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

(102028)

0A628 B26C9G15M7F8 W116E26V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	AILRON	SPOBRK	DELTON	DATASET	CELTON	SREF	SO.FT.	INCHES	INCHES	INCHES
O	.000	.200	.000	.000	.000	-10.000	102028	.000	19.2298	19.2298	INCHES	INCHES	INCHES
		BOFLAP	-12.000	AILRON	25.000	5.000	102026	15.000	37.9359	37.9359	INCHES	INCHES	INCHES
		RUDDER	.000	SPOBRK					43.5974	43.5974	INCHES	INCHES	INCHES
		H/BW	.125						YMRP	.0000	INCHES	INCHES	INCHES
									ZMRP	15.1875	INCHES	INCHES	INCHES
									SCALE	.0405	INCHES	INCHES	INCHES

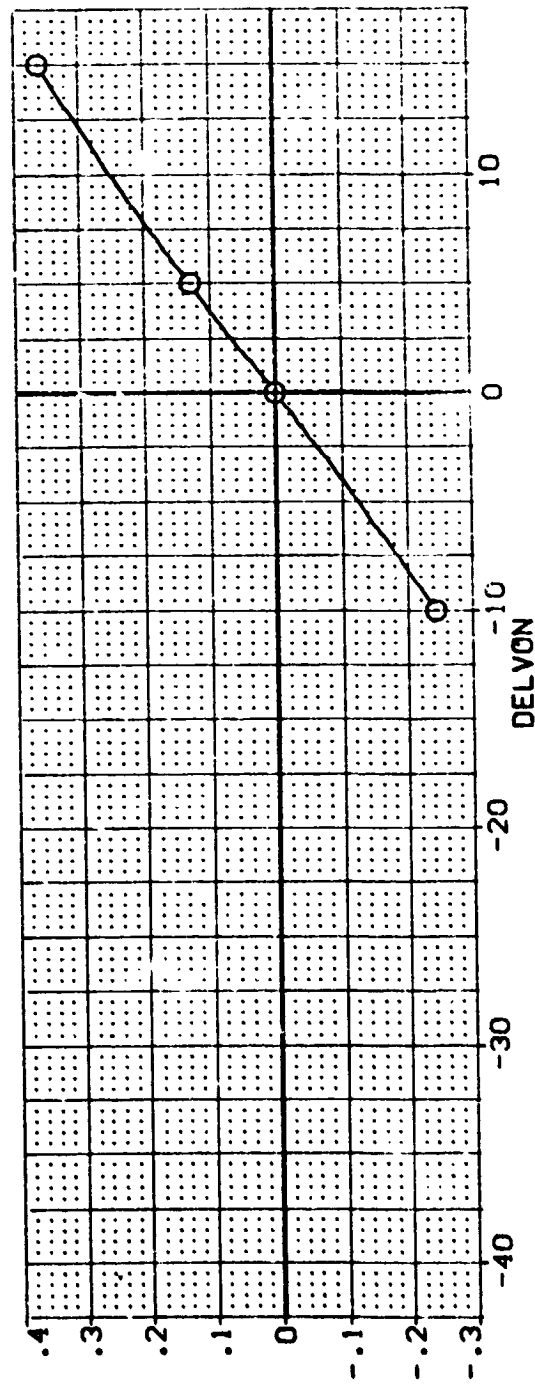
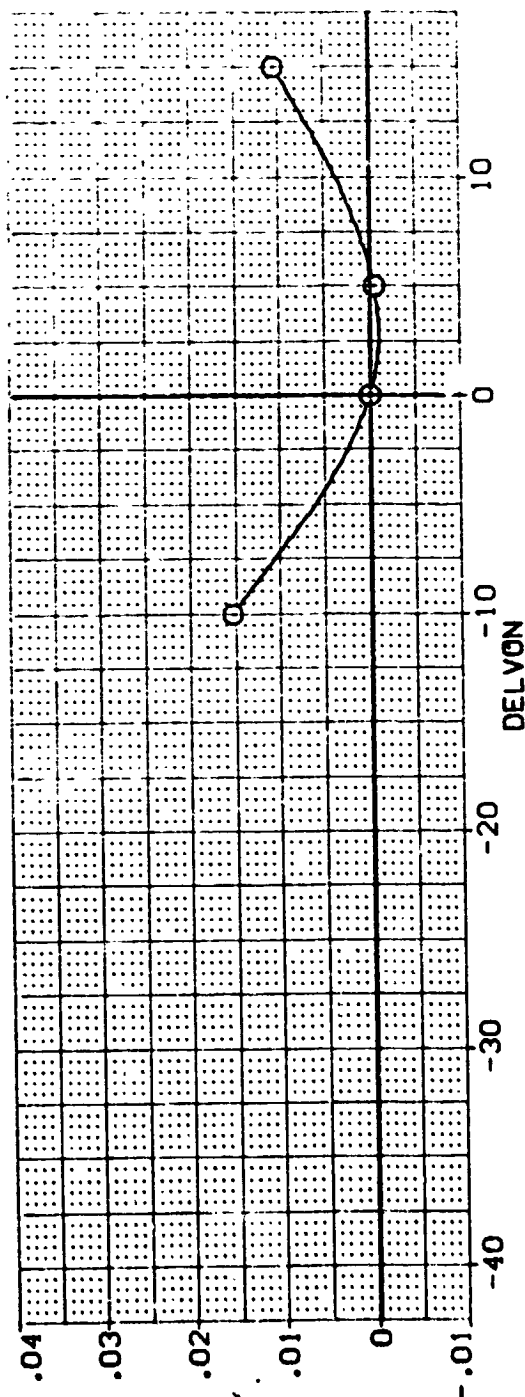


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125



(1DZ028)

0A62B B26C9G15M7F8 W116E26V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION			
			BETA	ATLRON	SPDRK	DELTON	DATASET	DELTON	SREF	LREF	BREF	SO.FT.
0	5.000	80FLAP	.200	-12.000	.000	-10.000	1DZ028	.000	19.2298	37.9359	43.5974	INCHES
		RUDDER	.000	.000	25.000	5.000	1DZ026	15.000	43.5974	43.5974	INCHES	
		H/BW	.125						15.1875	15.1875	INCHES	
									.0405	.0405	SCALE	

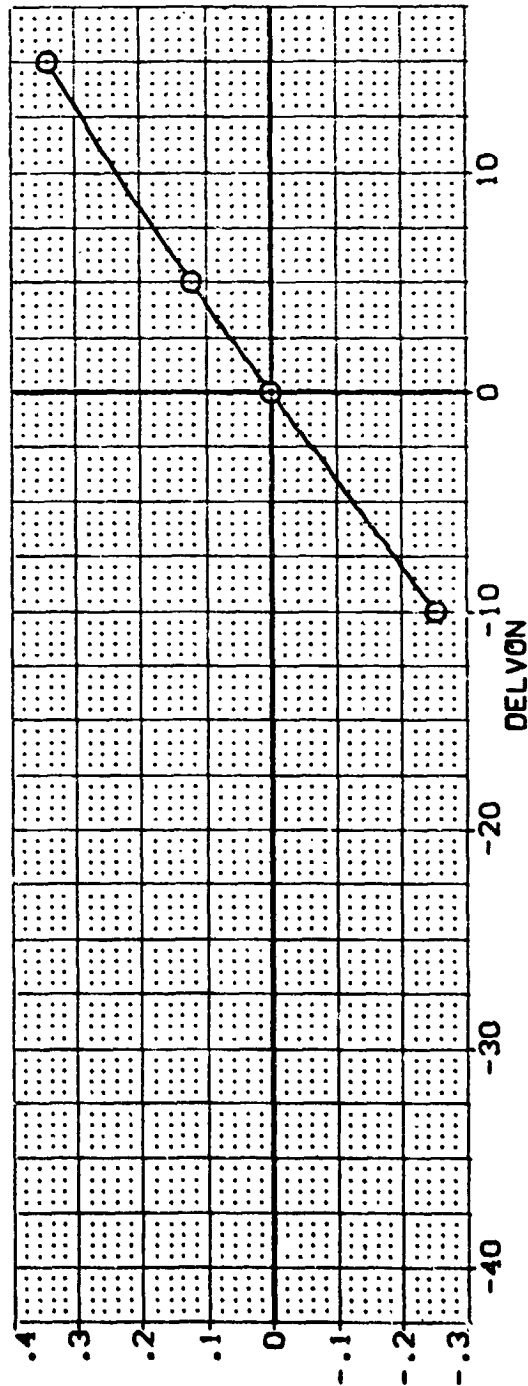
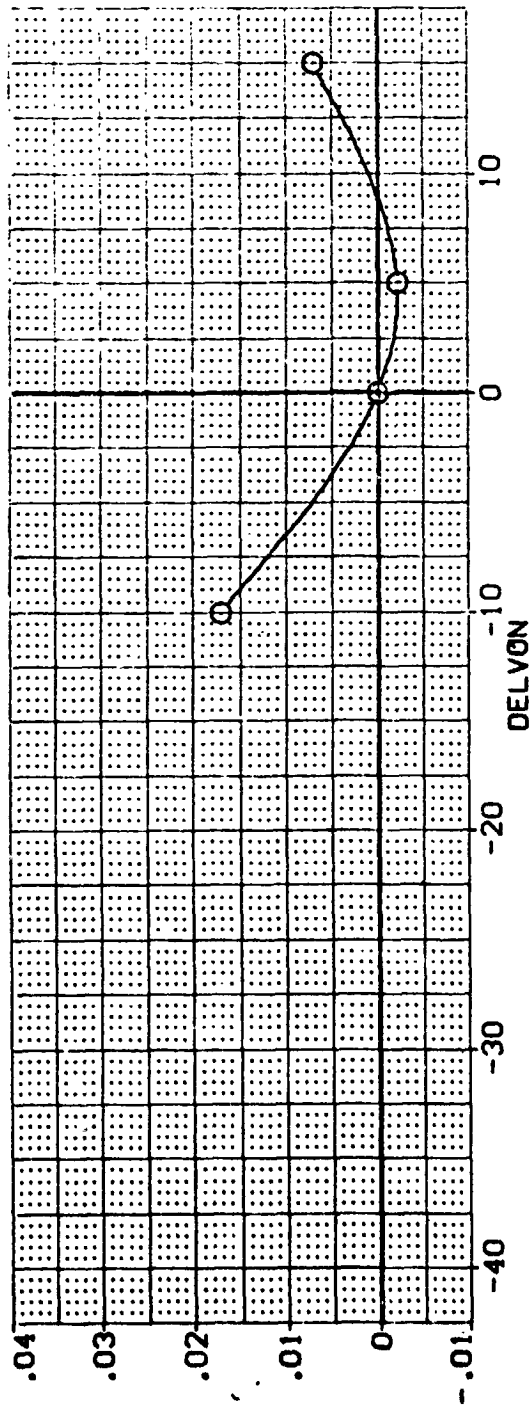


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

0A628 926C9G15M7F8 W116E26V8R5X9 (1DZ028)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DELTON	REFERENCE INFORMATION
O	10.000	MACH .200 BETA	.000 DATASET	1DZ028	.000	SO.FT. 4.4119
		BOFLAP -12.000 AILRON	.000 IDZ028	1DZ022	15.000	INCHES 19.2299
		RUDER .000 SPOBRK	25.000 IDZ024			INCHES 37.9359
		H/BW .125				INCHES 43.5974
						INCHES .0000
						INCHES 15.1875
						SCALE .0405

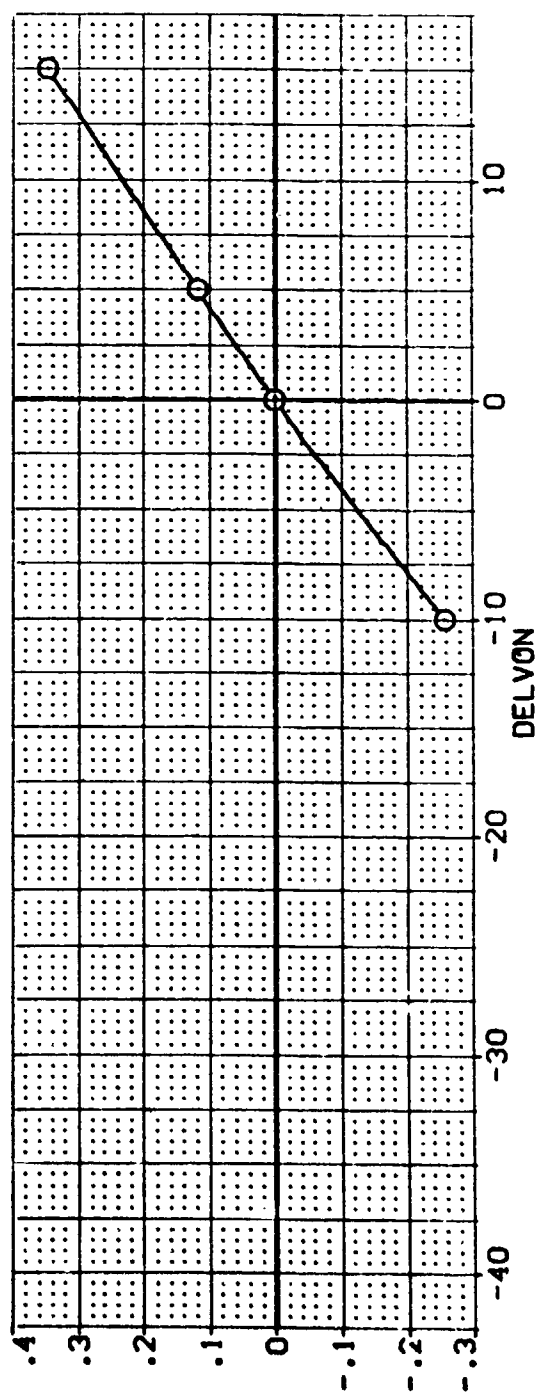
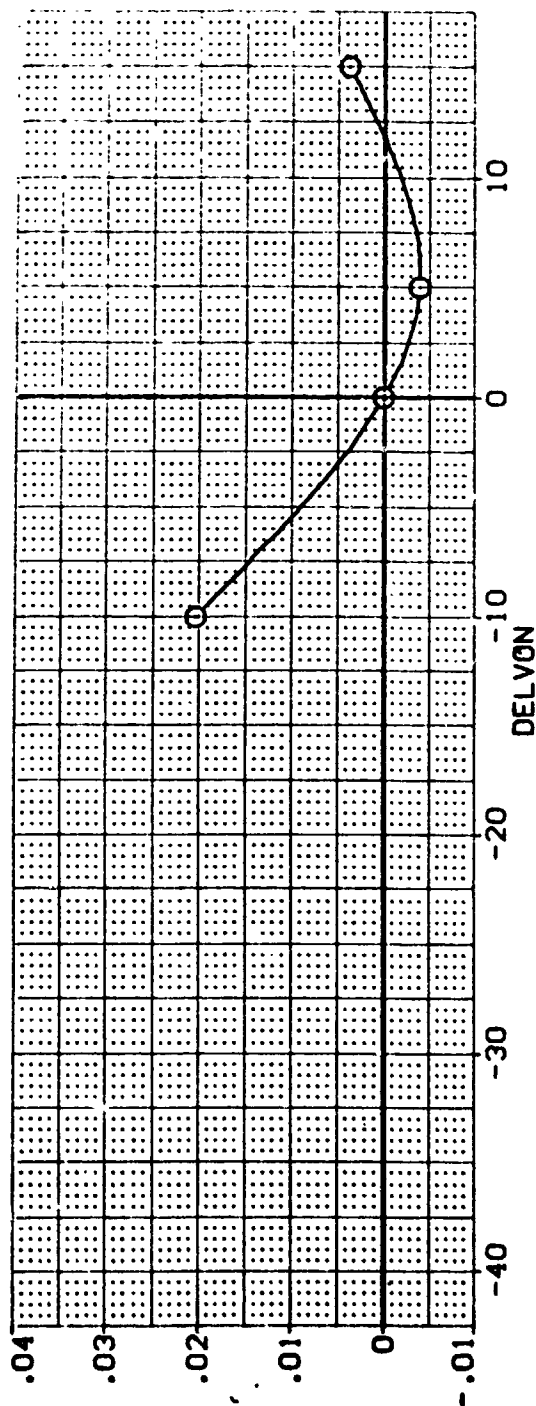


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125



0A628 B26C9G15M7F8 W116E26V8R5X9

(1DZ028)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
O	15.000		BETA	.000	DELTON	SREF	4.4119	SO. FT.	
		BOFLAP	-12.000	.000	10Z028	LREF	19.2299	INCHES	
		RUDDER	.000	25.000	10Z024	BREF	37.9359	INCHES	
			.125			XMRP	43.5974	INCHES	
						YMRP	.0000	INCHES	
						ZMRP	15.1875	INCHES	
						SCALE	.0405	SCALE	

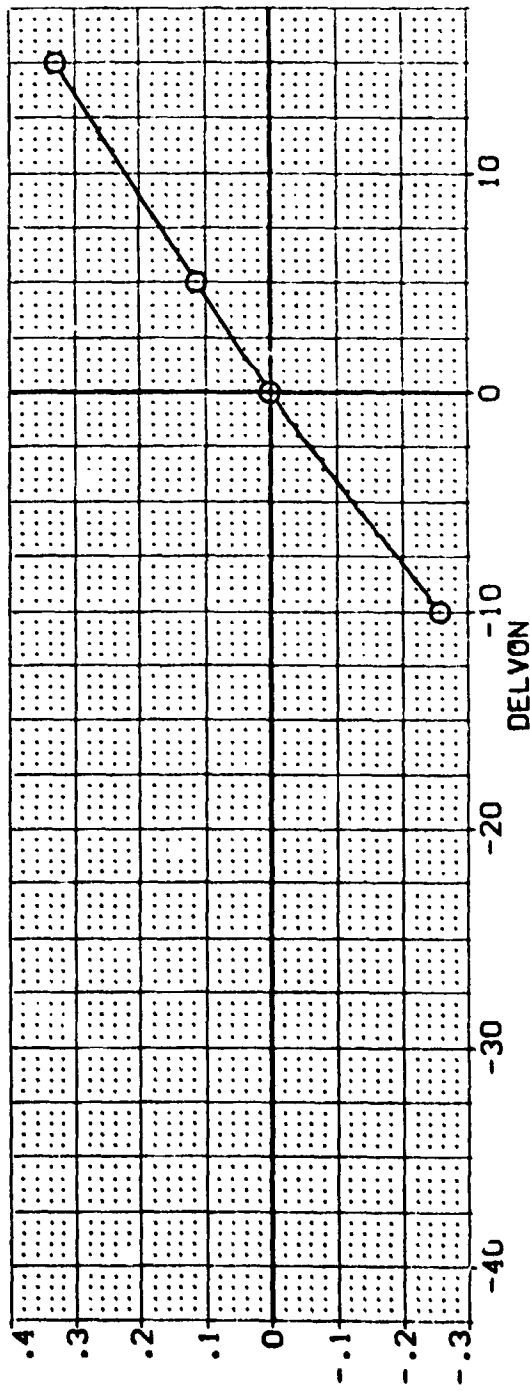
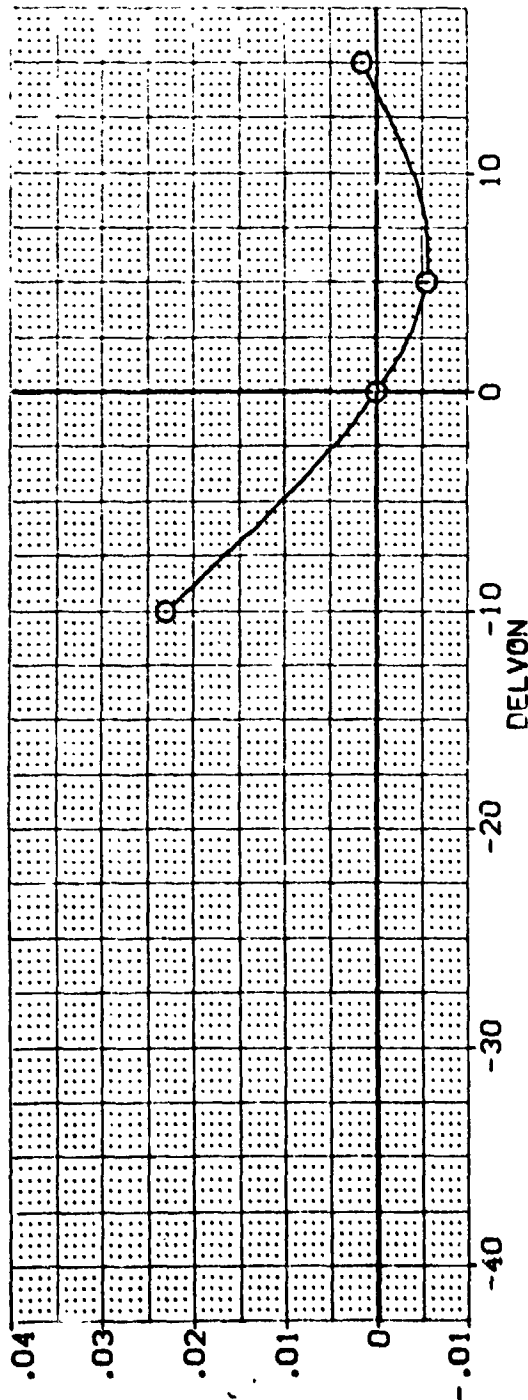


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

(102028)

0A628 B26C9G15M7F8 W116E26V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		MACH	BETA	AIRLON	SPOBRK	DELTON	DATASET	DELTON	SREF	LREF	SO.FT.
O	20.000	BDFLAP	-12.000	.000	.000	-10.000	102028	.000	19.2299	37.9359	INCHES
		RUDDER	.000	.000	25.000	5.000	102024	15.000	43.5974	43.5974	INCHES
		H/BW	.125						YMRP	15.0000	INCHES
									ZMRP	15.1875	INCHES
									SCALE	.0405	SCALE

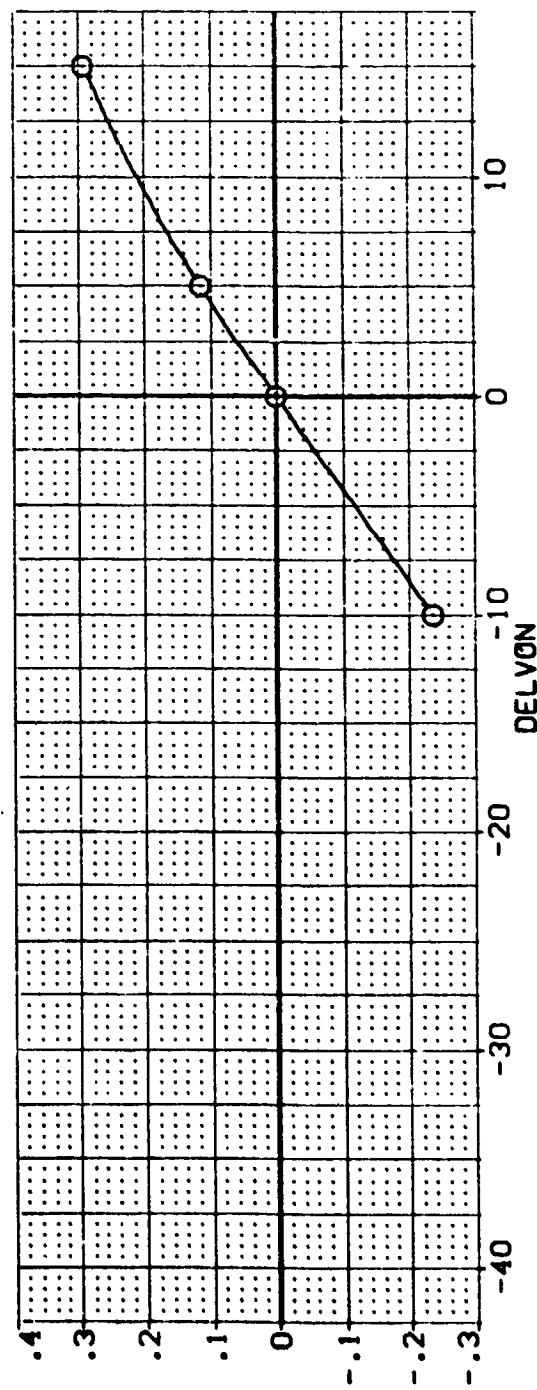
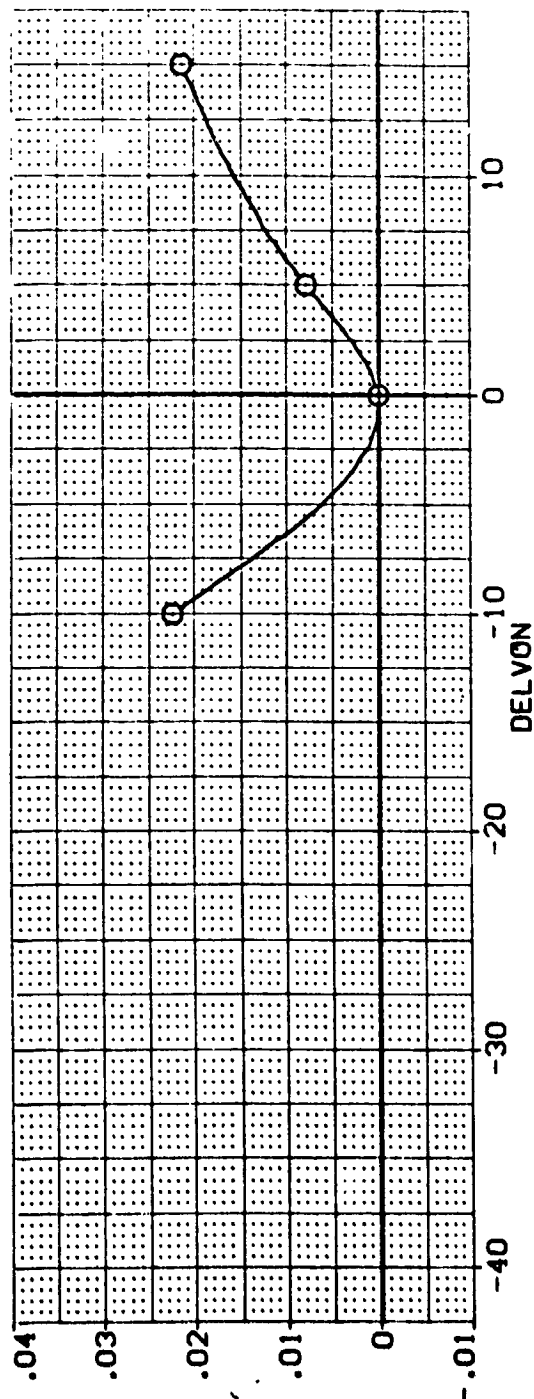


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125



**WEN**

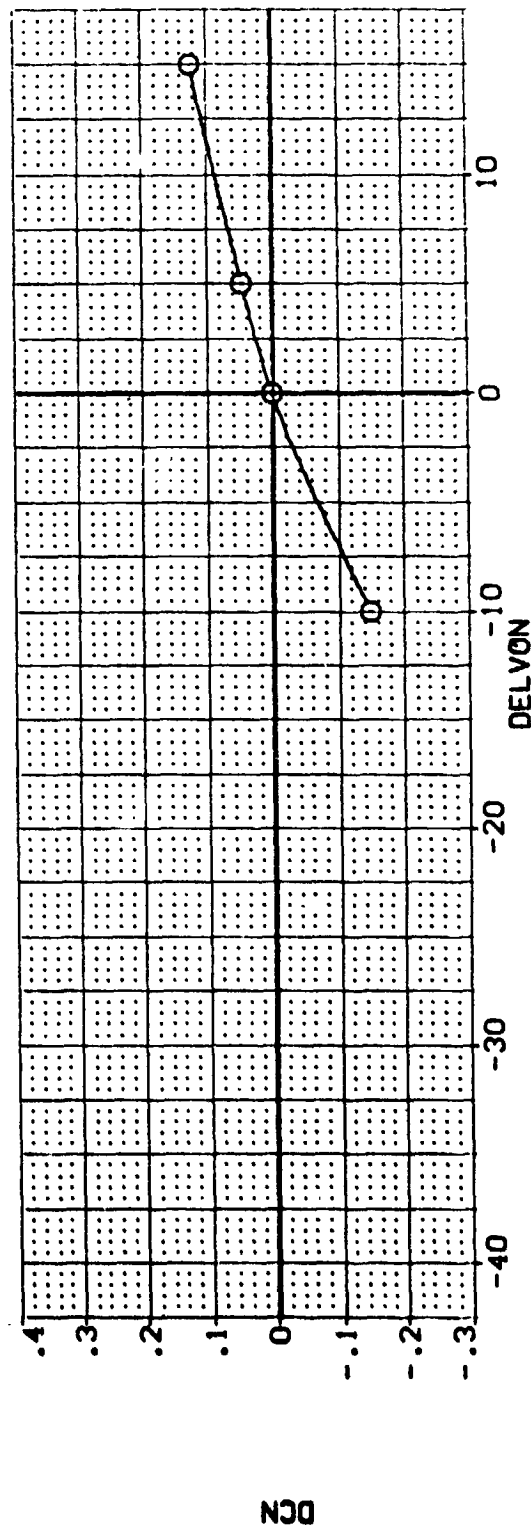
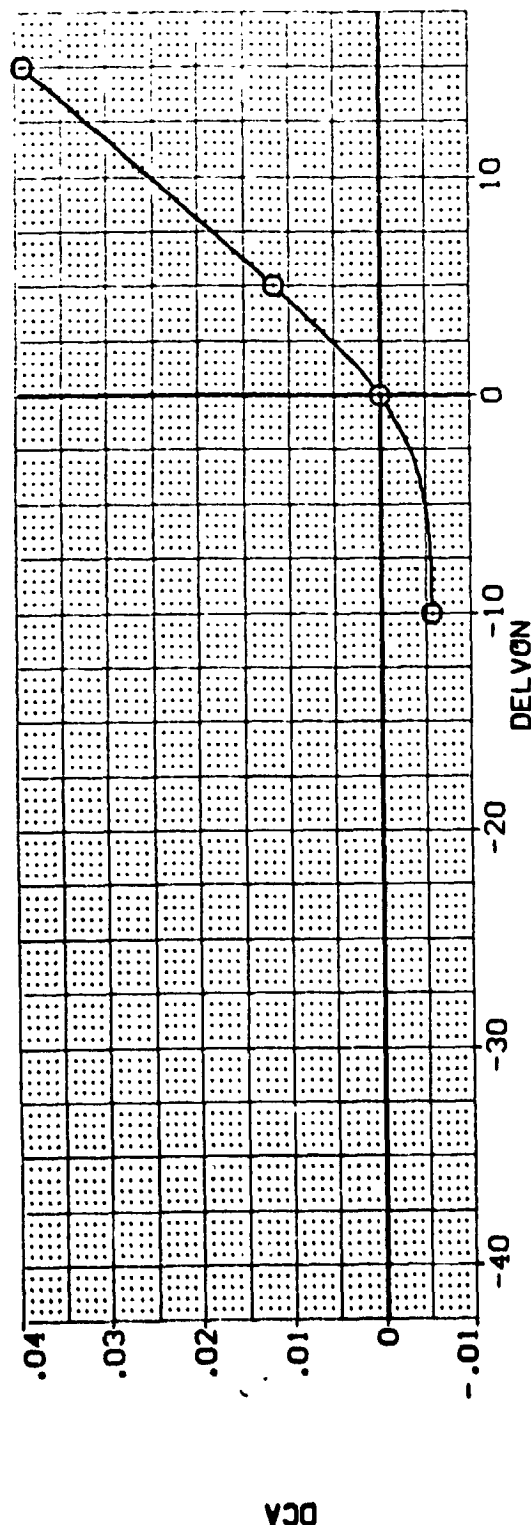


FIG 7 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = .125

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(802040)	0A628 826C3G154778 VII16E28V8R5X9	-5.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(802041)	0A628 826C3G154778 VII16E28V8R5X9	.068	25.000	-12.000	LREF 19.2299 INCHES
(802042)	0A628 826C3G154778 VII16E28V8R5X9	.068	25.000	-12.000	BREF 37.9359 INCHES
(802043)	0A628 826C3G154778 VII16E28V8R5X9	.068	25.000	-12.000	YMRP 43.5374 INCHES
(802044)	0A628 826C3G154778 VII16E28V8R5X9	.068	25.000	-12.000	ZMRP 15.0000 INCHES
(802045)	0A628 826C3G154778 VII16E28V8R5X9	.068	25.000	-12.000	SCALE .0405

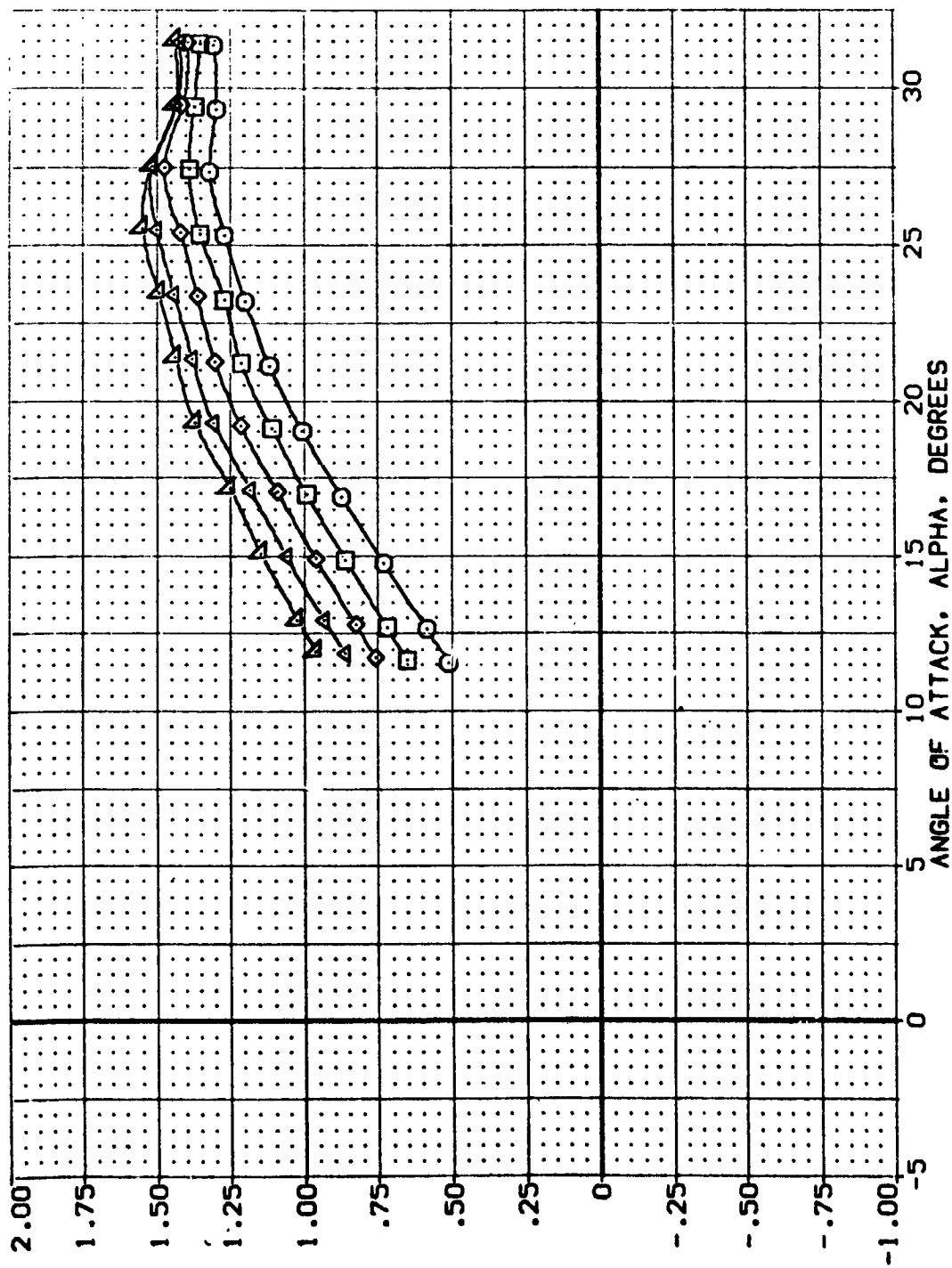


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
-5.000	.068	25.000	-12.000	SREF 4.4119 SQ.FT.
5.000	.068	25.000	-12.000	LREF 19.2299 INCHES
10.000	.068	25.000	-12.000	BREF 37.9359 INCHES
15.000	.068	25.000	-12.000	XRRP 43.5974 INCHES
				YRRP .0000 INCHES
				ZRRP 15.1875 INCHES
				SCALE .0405

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B02001)	0A628 826C9G1547F8 V116E28V8RSX9
(B02004)	0A628 826C9G1547F8 V116E28V8RSX9
(B02013)	0A628 826C9G1547F8 V116E28V8RSX9
(B02042)	0A628 826C9G1547F8 V116E28V8RSX9
(B02041)	0A628 826C9G1547F8 V116E28V8RSX9

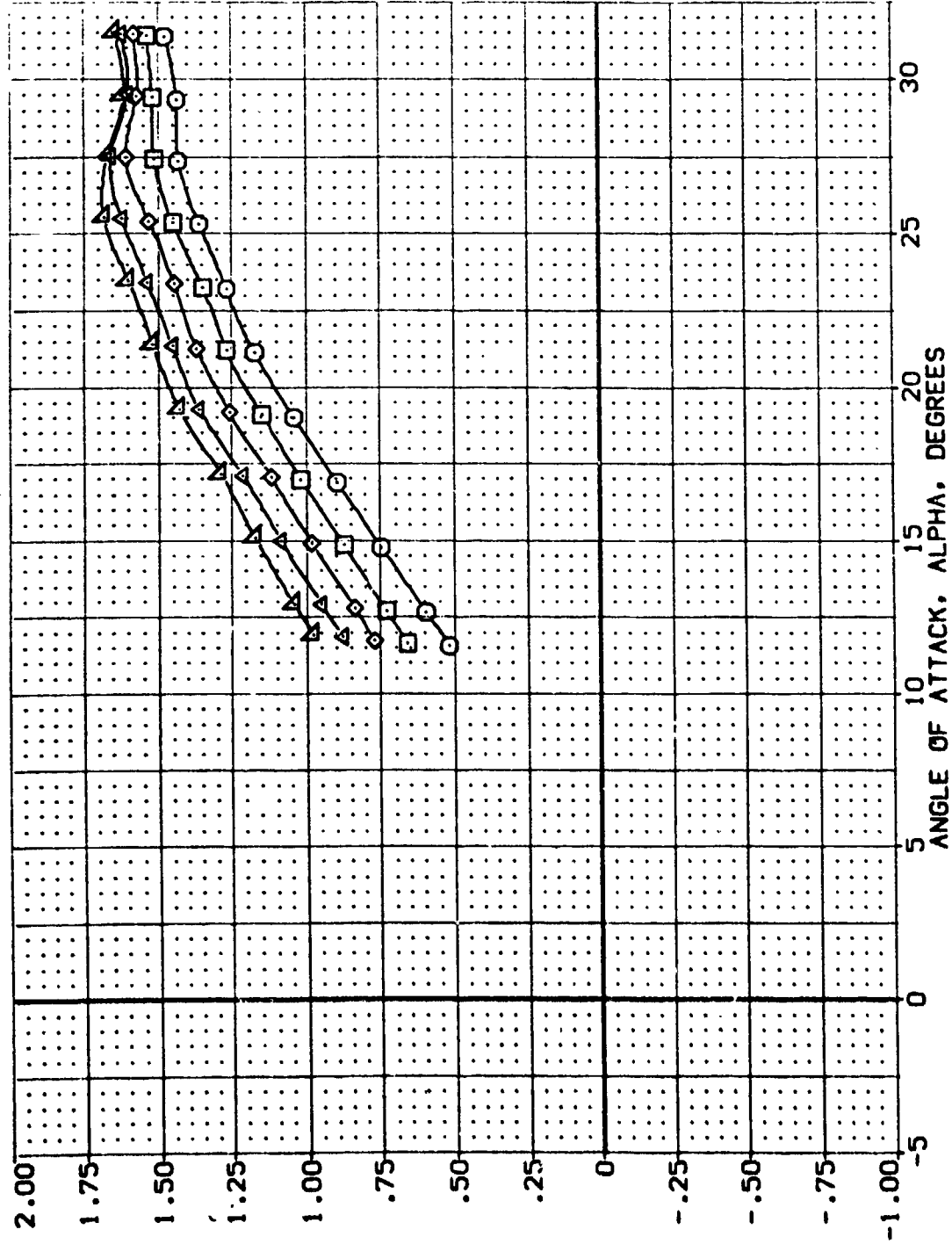


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLUP	REFERENCE INFORMATION
BOZD40	DA528 B26C3G1547F8 V116E28V85X9	-5.000	.068	25.000	-12.000	SREF 4.4119 50.000
BOZD41	DA528 B26C3G1547F8 V116E28V85X9	5.000	.068	25.000	-12.000	LREF 19.2289 100.000
BOZD42	DA528 B26C3G1547F8 V116E28V85X9	10.000	.068	25.000	-12.000	BREF 37.9359 100.000
BOZD43	DA528 B26C3G1547F8 V116E28V85X9	15.000	.068	25.000	-12.000	XREF 43.5874 100.000
BOZD44	DA528 B26C3G1547F8 V116E28V85X9					YREF 15.1875 100.000
BOZD45	DA528 B26C3G1547F8 V116E28V85X9					ZREF 15.1875 100.000
BOZD46	DA528 B26C3G1547F8 V116E28V85X9					SCALE .0405

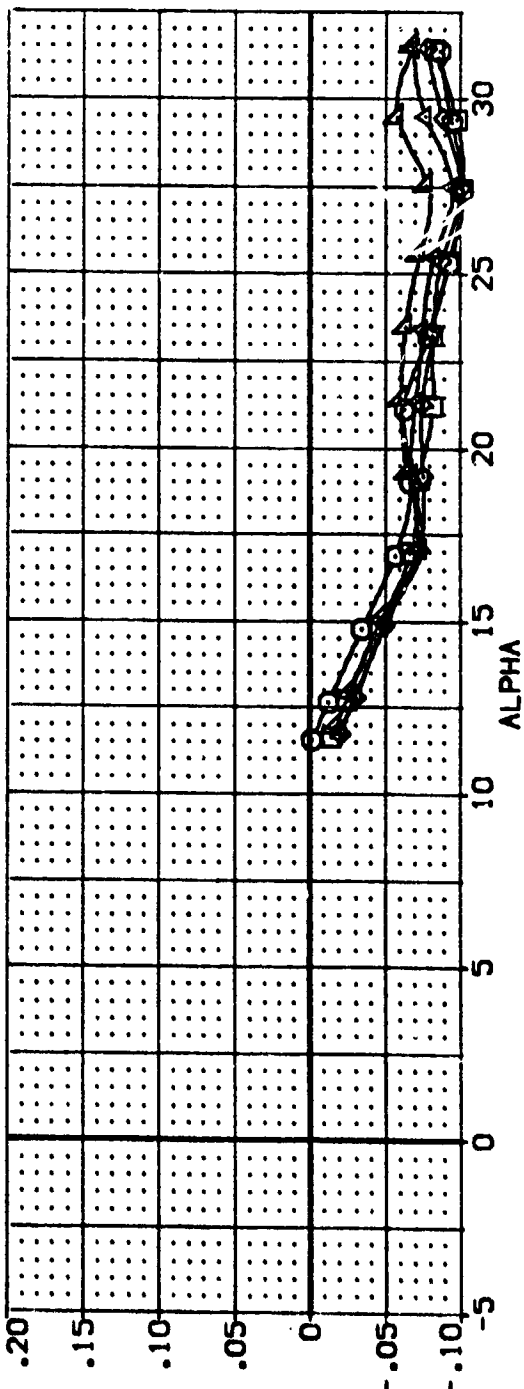
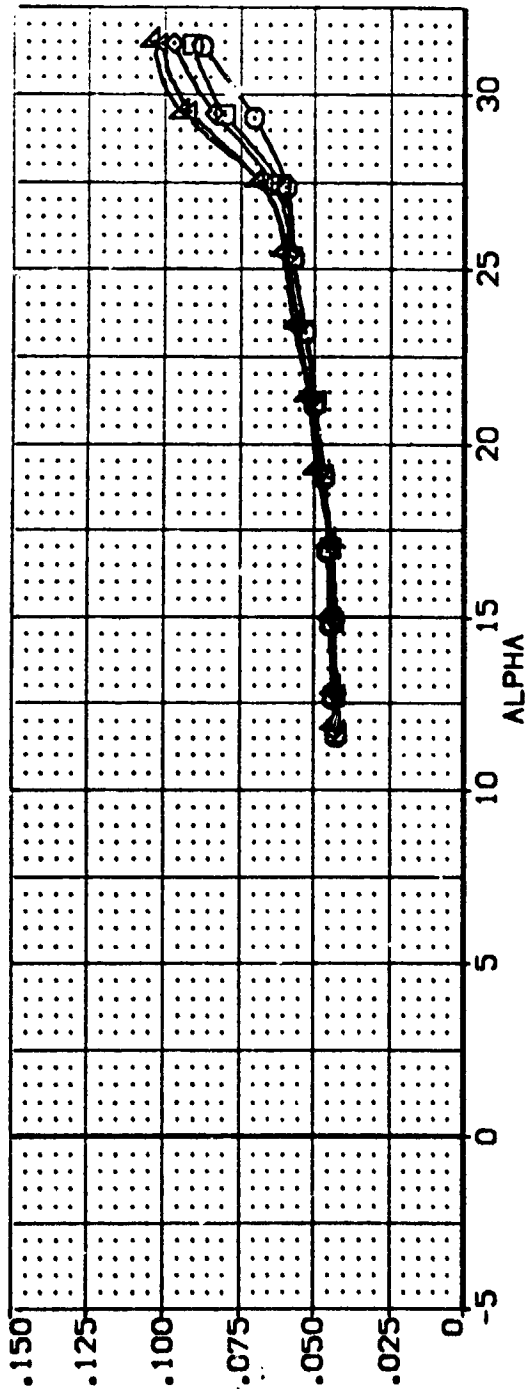


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

[A]MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(BD2040)	0A528 826C9G1 5H7F8 V116E28V8RSX9	-5.000	25.000	-12.000	SREF 4.4119 SO.FT.
(BD2041)	0A528 826C9G1 5H7F8 V116E28V8RSX9	.000	25.000	-12.000	LREF 19.2299 INCHES
(BD2042)	0A528 826C9G1 5H7F8 V116E28V8RSX9	5.000	25.000	-12.000	BREF 37.9359 INCHES
(BD2043)	0A528 826C9G1 5H7F8 V116E28V8RSX9	10.000	25.000	-12.000	YMRP 43.5974 INCHES
(BD2044)	0A528 826C9G1 5H7F8 V116E28V8RSX9	15.000	25.000	-12.000	ZMRP 15.1875 INCHES
					SCALE .0405

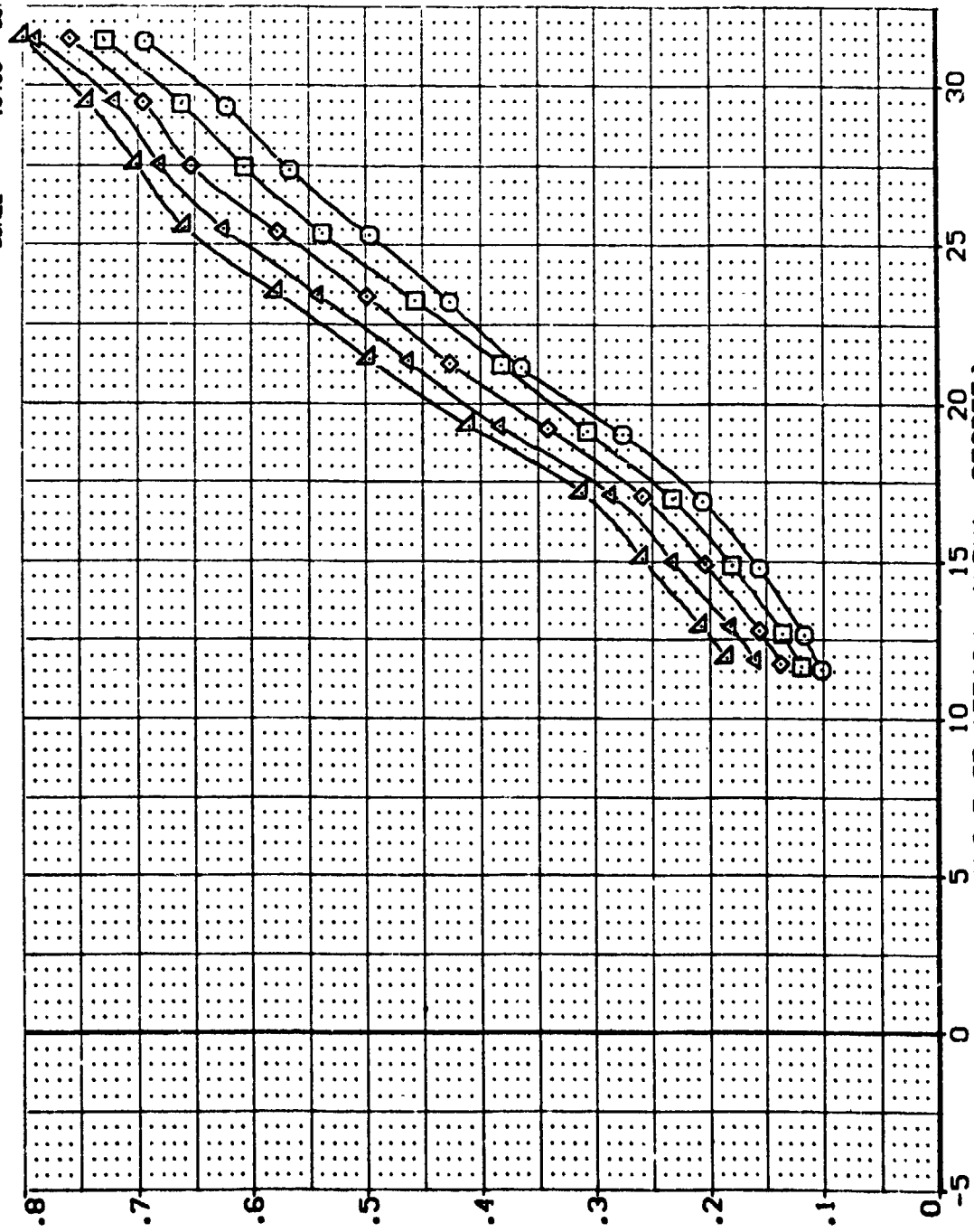


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BOFLAP	REFERENCE INFORMATION
(BD2040)	0A628 B26C9G1 SH7F8	-5.000	.068	25.000	-12.000	SREF 4.4119 SQ.FT.
(BD2041)	0A628 B26C9G1 SH7F8	5.000	.068	25.000	-12.000	LREF 19.2289 INCHES
(BD2042)	0A628 B26C9G1 SH7F8	10.000	.068	25.000	-12.000	BREF 37.9559 INCHES
(BD2043)	0A628 B26C9G1 SH7F8	15.000	.068	25.000	-12.000	YMRP 43.5974 INCHES
(BD2044)	0A628 B26C9G1 SH7F8	20.000	.068	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

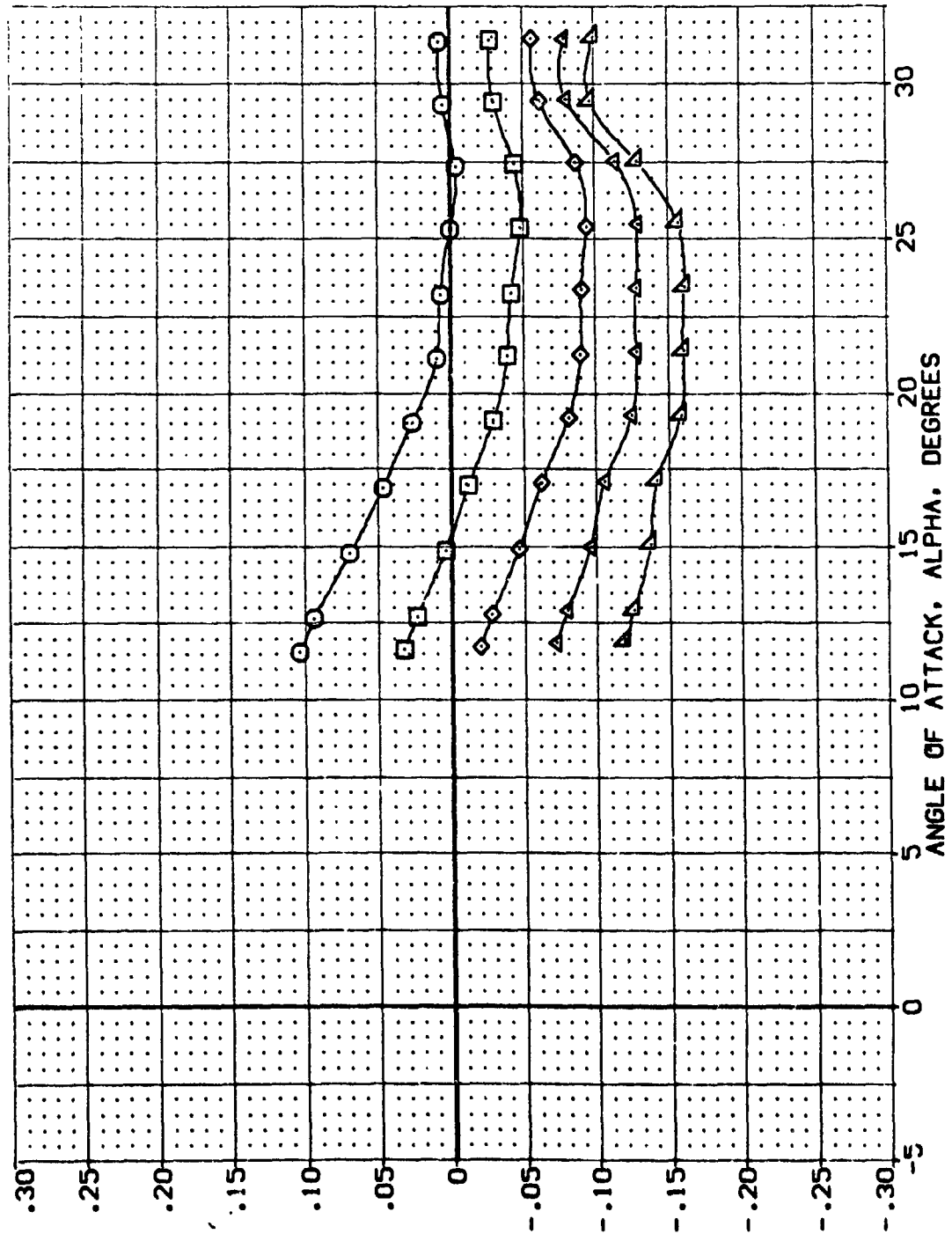


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORR	BOFLAP	REFERENCE INFORMATION
(B02040)	0A628 B26C9G1SMTF8 V116E28V85X9	-5.000	.068	25.000	-12.000	SREF 4.4119 50. FT.
(B02041)	0A628 B26C9G1SMTF8 V116E28V85X9	.000	.068	25.000	-12.000	LREF 19.2299 INCHES
(B02042)	0A628 B26C9G1SMTF8 V116E28V85X9	5.000	.068	25.000	-12.000	BREF 37.9359 INCHES
(B02043)	0A628 B26C9G1SMTF8 V116E28V85X9	10.000	.068	25.000	-12.000	XMRP 43.5974 INCHES
(B02044)	0A628 B26C9G1SMTF8 V116E28V85X9	15.000	.068	25.000	-12.000	YMRP 15.1875 INCHES
						SCALE .0405

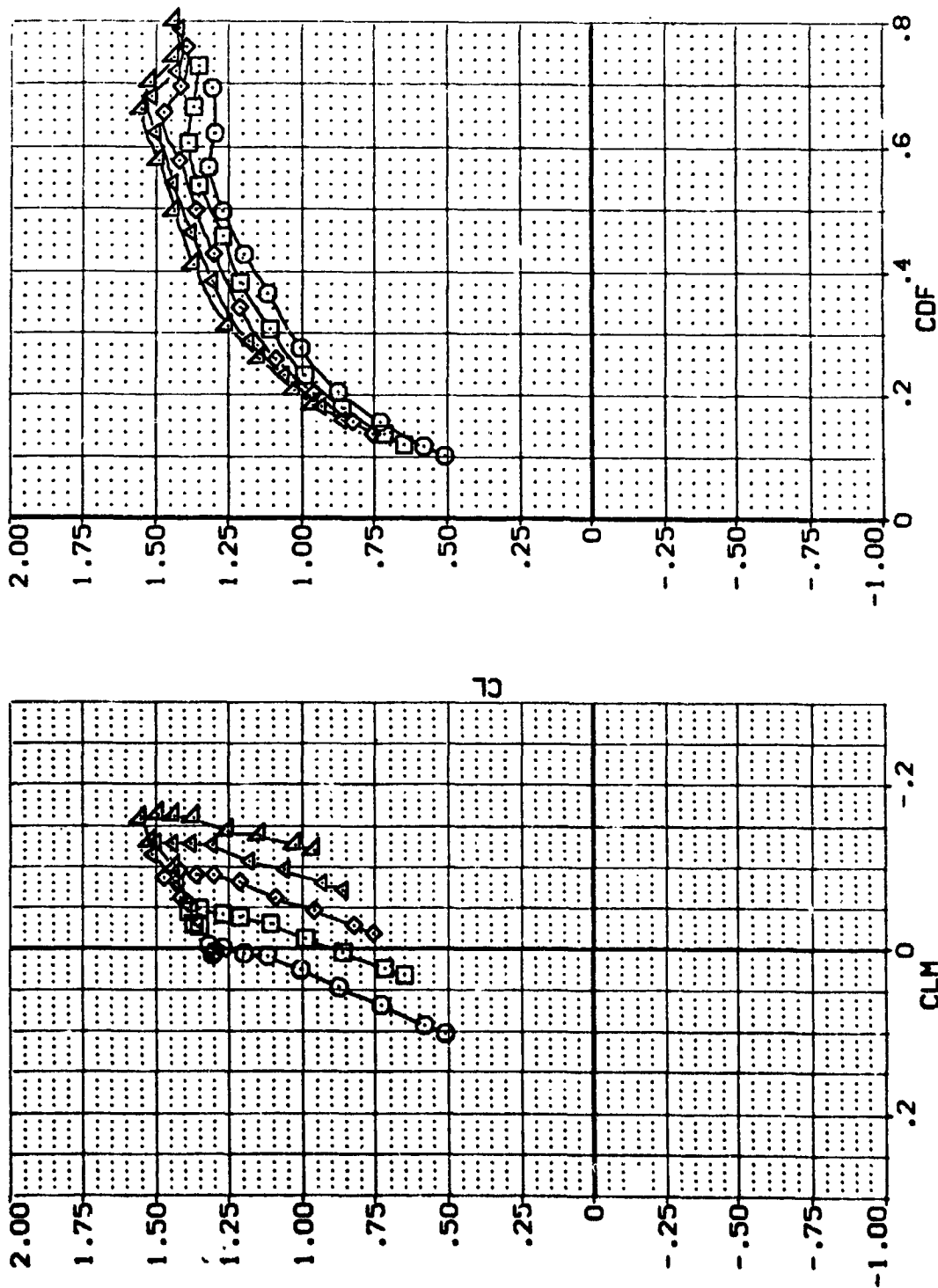


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

(2)

(2)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02040)	0A628 B26C3G1 5H7F8 V116E28V85X9	-5.000	.068	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02041)	0A628 B26C3G1 5H7F8 V116E28V85X9	.000	.068	25.000	-12.000	LREF 19.2299 INCHES
(B02042)	0A628 B26C3G1 5H7F8 V116E28V85X9	5.000	.068	25.000	-12.000	BREF 37.9359 INCHES
(B02043)	0A628 B26C3G1 5H7F8 V116E28V85X9	10.000	.068	25.000	-12.000	XREF 43.5974 INCHES
(B02044)	0A628 B26C3G1 5H7F8 V116E28V85X9	15.000	.068	25.000	-12.000	YREF .0000 INCHES
(B02045)	0A628 B26C3G1 5H7F8 V116E28V85X9					ZREF 15.1875 INCHES
						SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

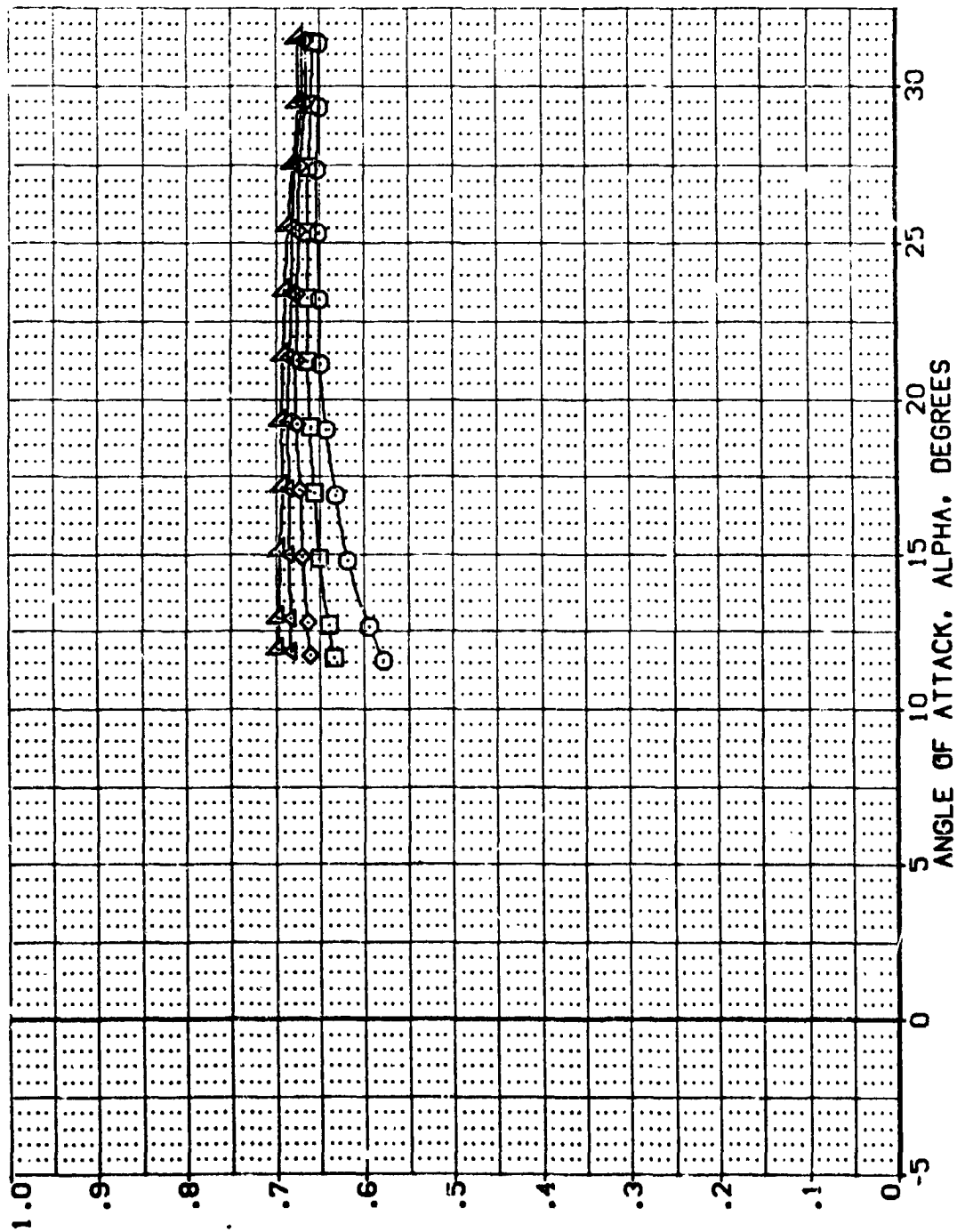


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(802040)	04628 826C9G1547F8 V116E28V8RSX9	-5.000	.068	25.000	-12.000	SREF 4.4119 SO.FT.
(802041)	04628 826C9G1547F8 V116E28V8RSX9	.000	.068	25.000	-12.000	LRFF 19.2288 INCHES
(802042)	04628 826C9G1547F8 V116E28V8RSX9	5.000	.068	25.000	-12.000	BRFF 37.9359 INCHES
(802043)	04628 826C9G1547F8 V116E28V8RSX9	10.000	.068	25.000	-12.000	XMRP 43.5974 INCHES
(802044)	04628 826C9G1547F8 V116E28V8RSX9	15.000	.068	25.000	-12.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

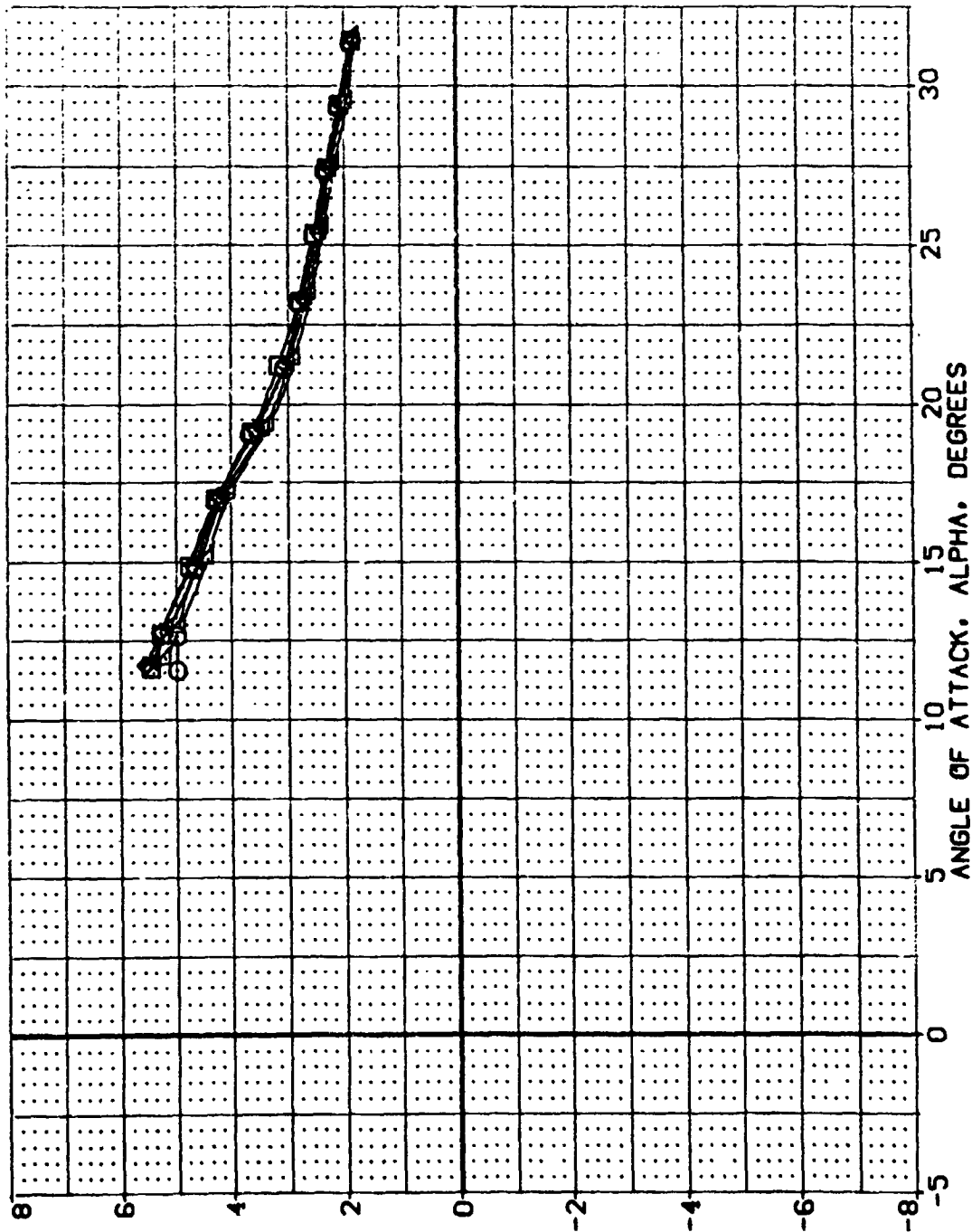


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(802035)	04628 B26C5G1547F8 V116E28V85X9	-40.000	.068	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(802036)	04628 B26C5G1547F8 V116E28V85X9	-30.000	.068	25.000	-12.000	LREF 19.2299 INCHES
(802037)	04628 B26C5G1547F8 V116E28V85X9	-20.000	.068	25.000	-12.000	BREF 37.9359 INCHES
(802038)	04628 B26C5G1547F8 V116E28V85X9	-15.000	.068	25.000	-12.000	XMRP 43.5974 INCHES
(802039)	04628 B26C5G1547F8 V116E28V85X9	-10.000	.068	25.000	-12.000	YMRP 15.0000 INCHES
(802044)	04628 B26C5G1547F8 V116E28V85X9	.000	.068	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

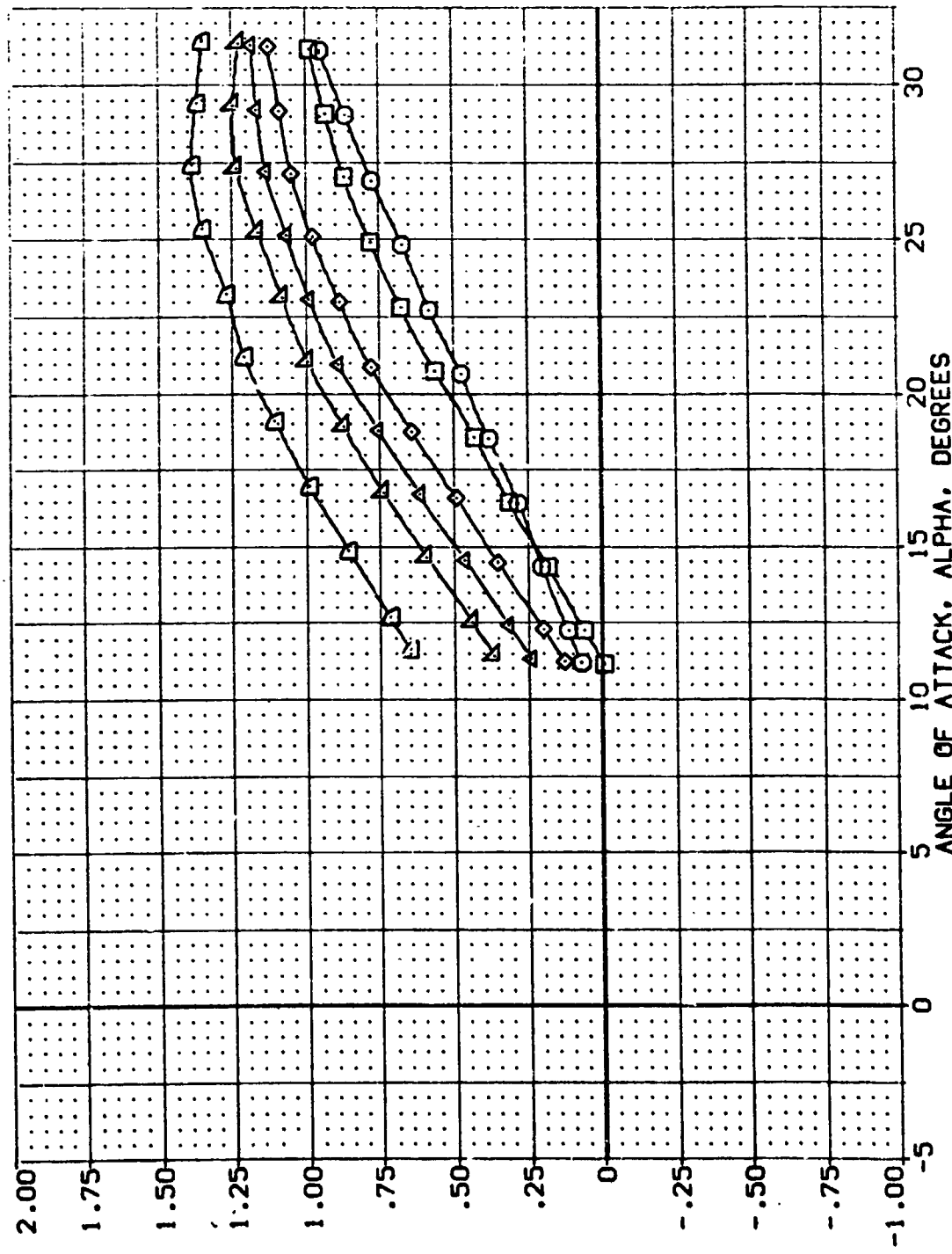


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(802005)	0A628 B26C9G 547F8 VI16E28V8RSX9	-40.000	.068	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(802006)	0A628 B26C9G 547F8 VI16E28V8RSX9	-30.000	.068	25.000	-12.000	LREF 19.2298 INCHES
(802007)	0A628 B26C9G 547F8 VI16E28V8RSX9	-20.000	.068	25.000	-12.000	SREF 37.9359 INCHES
(802008)	0A628 B26C9G 547F8 VI16E28V8RSX9	-15.000	.068	25.000	-12.000	XMRP 43.5974 INCHES
(802009)	0A628 B26C9G 547F8 VI16E28V8RSX9	-10.000	.068	25.000	-12.000	YMRP .0000 INCHES
(802010)	0A628 B26C9G 547F8 VI16E28V8RSX9	.000	.068	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

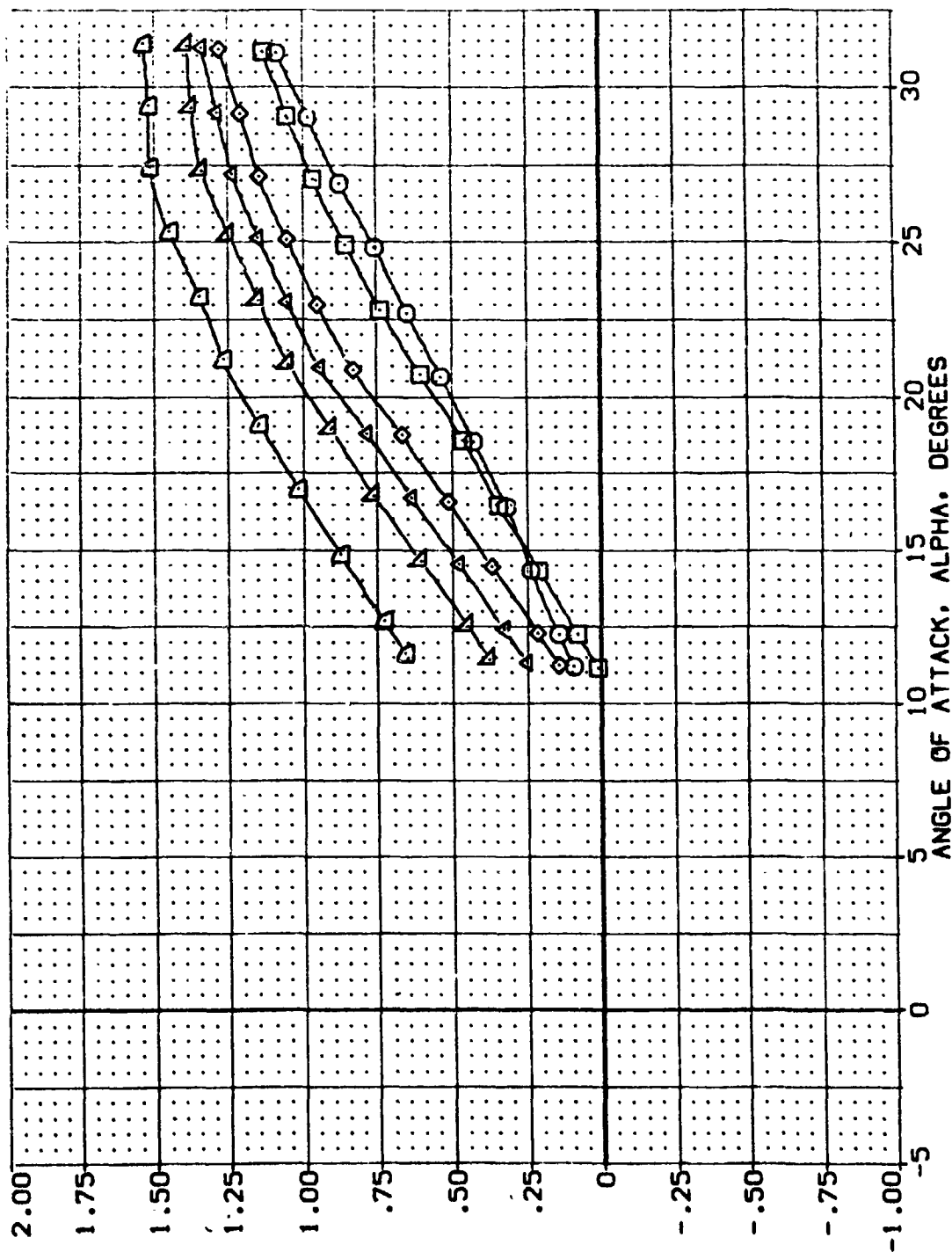


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

3

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(B02035)	04528 926C9G1 5M7F8	-40.000	.068	25.000	-12.000	SREF 4.4119 50.171
(B02036)	04528 926C9G1 5M7F8	-30.000	.068	25.000	-12.000	LREF 19.2289 INCHES
(B02037)	04528 926C9G1 5M7F8	-20.000	.068	25.000	-12.000	BREF 37.9359 INCHES
(B02038)	04528 926C9G1 5M7F8	-15.000	.068	25.000	-12.000	XREF 43.5374 INCHES
(B02039)	04528 926C9G1 5M7F8	-10.000	.068	25.000	-12.000	YREF .0000 INCHES
(B02044)	04528 926C9G1 5M7F8	-10.000	.068	25.000	-12.000	ZREF 15.1875 INCHES
						SCALE .0405

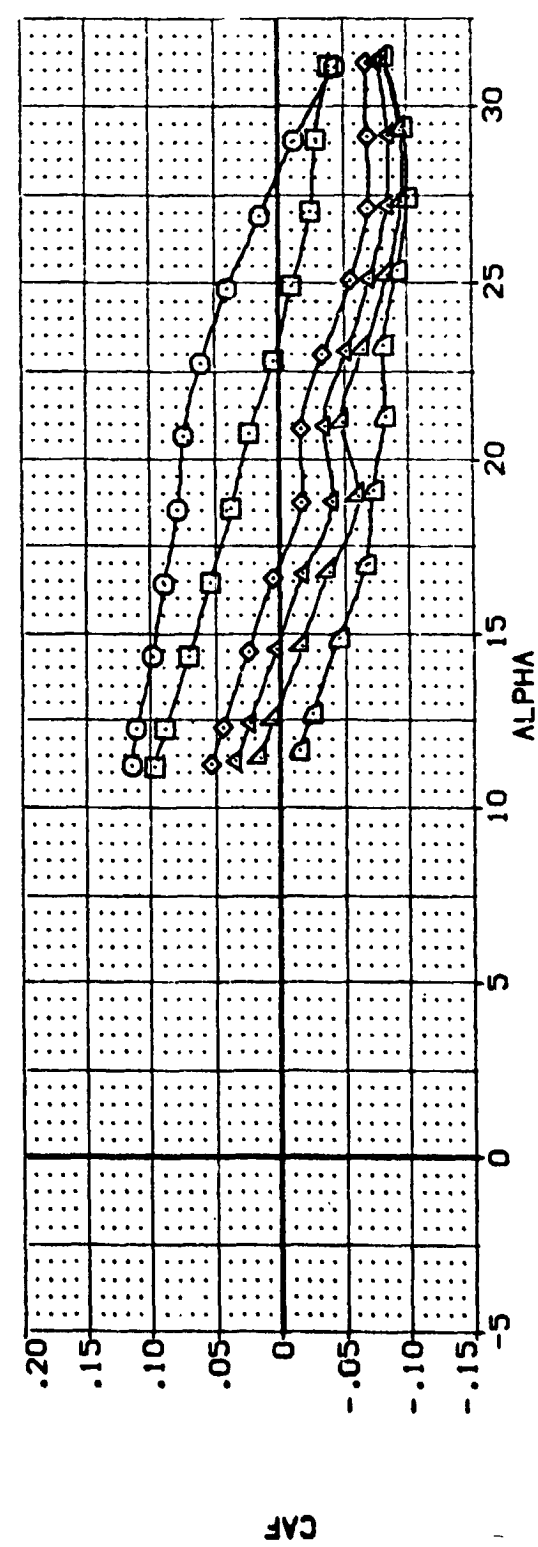
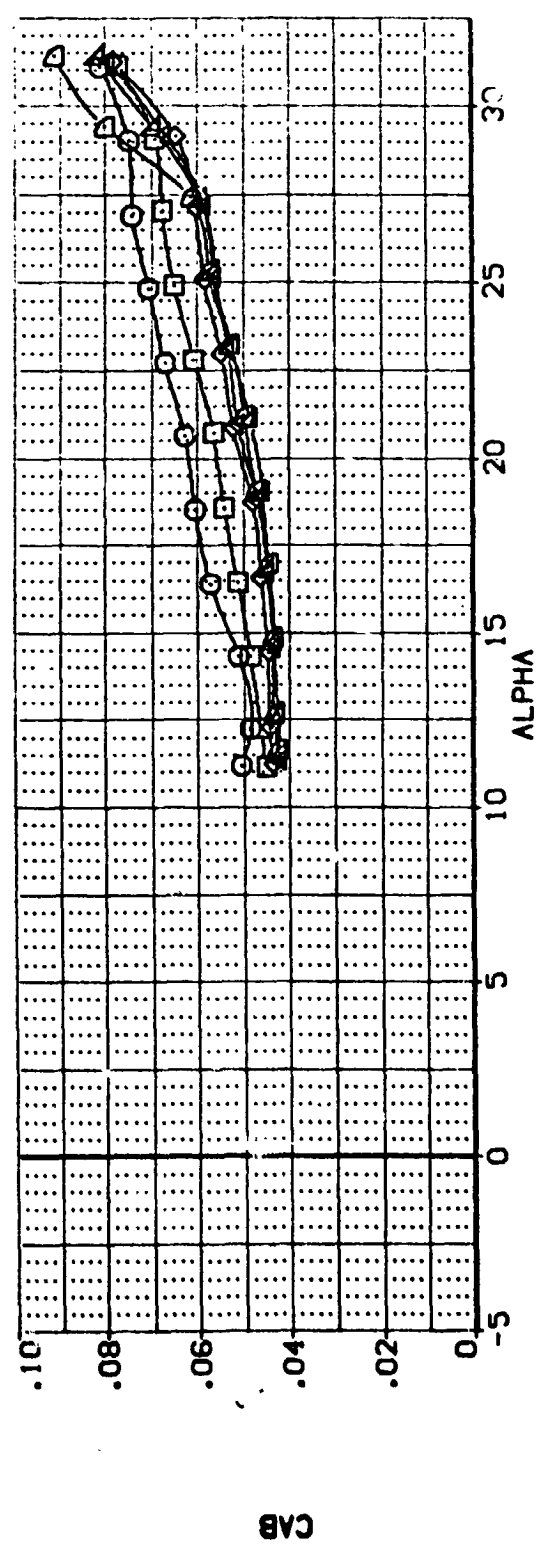


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORX	BD/LAP	REFERENCE INFORMATION
(802028)	0A528 B26C9G1 5H7F8 V116E28V8F5X9	-40.000	.068	25.000	-12.000	SREF 4.4119 SO.FT
(802030)	0A528 B26C9G1 5H7F8 V116E28V8F5X9	-30.000	.068	25.000	-12.000	LREF 19.2299 INCHES
(802032)	0A528 B26C9G1 5H7F8 V116E28V8F5X9	-20.000	.068	25.000	-12.000	BREF 37.9359 INCHES
(802034)	0A528 B26C9G1 5H7F8 V116E28V8F5X9	-15.000	.068	25.000	-12.000	XMRP 43.5974 INCHES
(802036)	0A528 B26C9G1 5H7F8 V116E28V8F5X9	-10.000	.068	25.000	-12.000	YMRP .0000 INCHES
(802044)	0A528 B26C9G1 5H7F8 V116E28V8F5X9	.000	.068	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

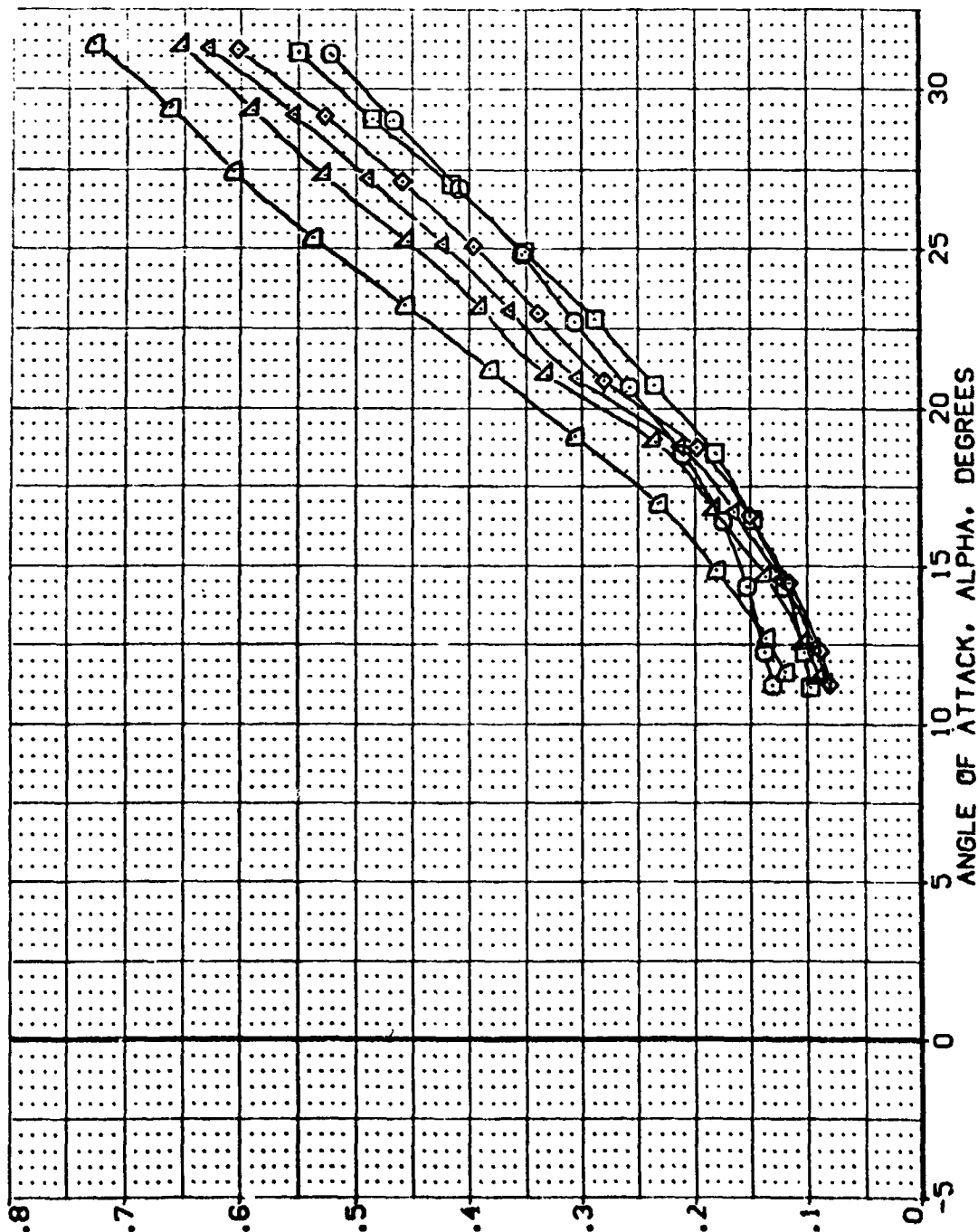


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON H/BW	SPDRX	BDFLAP	REFERENCE INFORMATION
(802005)	0A628 B26C9G1 5H7F8	.068	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(802006)	0A628 B26C9G1 5H7F8	.068	25.000	-12.000	LREF 19.2299 INCHES
(802007)	0A628 B26C9G1 5H7F8	.068	25.000	-12.000	BREF 37.9359 INCHES
(802008)	0A628 B26C9G1 5H7F8	.068	25.000	-12.000	XMRP 43.5974 INCHES
(802009)	0A628 B26C9G1 5H7F8	.068	25.000	-12.000	YMRP .0000 INCHES
(802014)	0A628 B26C9G1 5H7F8	.068	25.000	-12.000	ZMRP 15.1875 INCHES
					SCALE .0405

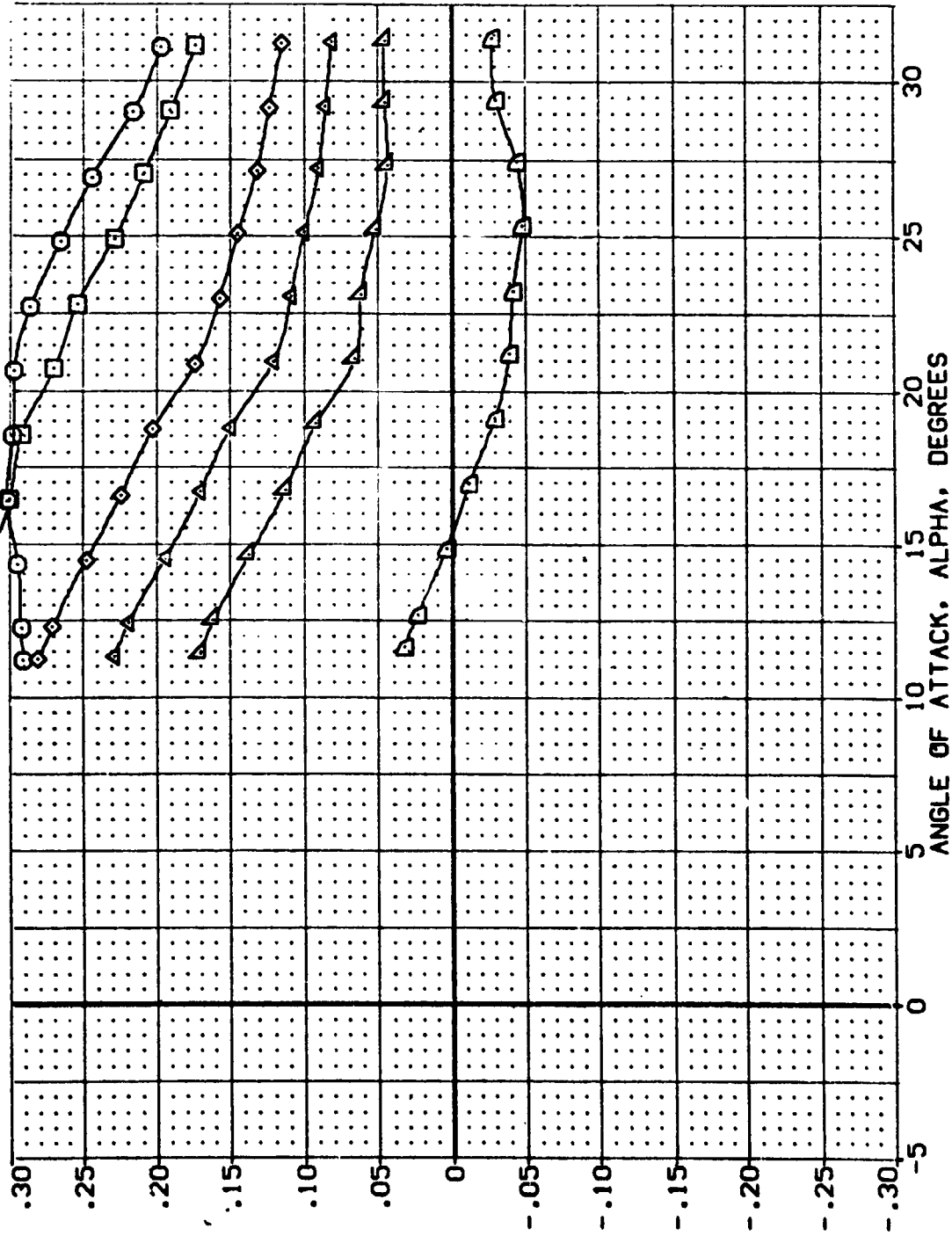


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOROK	BOFLAP	REFERENCE INFORMATION
(802025)	0A628 826C5G1547F8 V116E28V85X9	-40.000	.068	25.000	-12.000	SREF 4.4119 SO.FT.
(802036)	0A628 826C5G1547F8 V116E28V85X9	-30.000	.068	25.000	-12.000	LREF 19.2299 INCHES
(802037)	0A628 826C5G1547F8 V116E28V85X9	-20.000	.068	25.000	-12.000	BREF 37.9359 INCHES
(802038)	0A628 826C5G1547F8 V116E28V85X9	-15.000	.068	25.000	-12.000	YMRP 43.5974 INCHES
(802039)	0A628 826C5G1547F8 V116E28V85X9	-10.000	.068	25.000	-12.000	ZMRP .0000 INCHES
(802044)	0A628 826C5G1547F8 V116E28V85X9	.000	.068	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

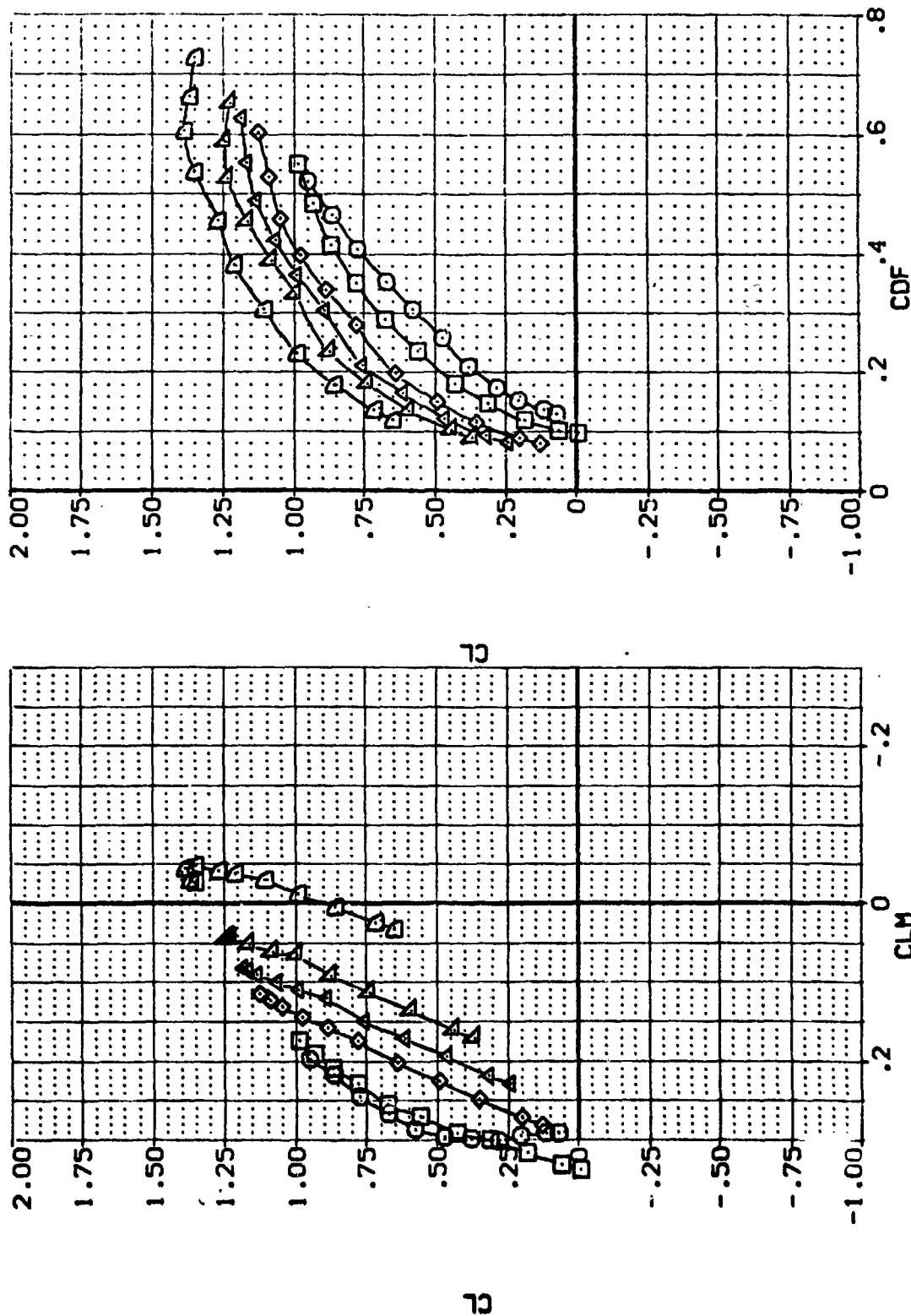


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802035)	0A628 B26C9G1547F8 V116E28VBR5X9	40.000	.068	25.000	-12.000	SREF 4.4119 SQ.FT.
(802036)	0A628 B26C9G1547F8 V116E28VBR5X9	30.000	.068	25.000	-12.000	LREF 19.2299 INCHES
(802037)	0A628 B26C9G1547F8 V116E28VBR5X9	20.000	.068	25.000	-12.000	BREF 37.9359 INCHES
(802038)	0A628 B26C9G1547F8 V116E28VBR5X9	15.000	.068	25.000	-12.000	XPRP 43.5974 INCHES
(802039)	0A628 B26C9G1547F8 V116E28VBR5X9	10.000	.068	25.000	-12.000	YPRP 15.0000 INCHES
(802044)	0A628 B26C9G1547F8 V116E28VBR5X9	10.000	.068	25.000	-12.000	ZPRP 15.1875 INCHES
						SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

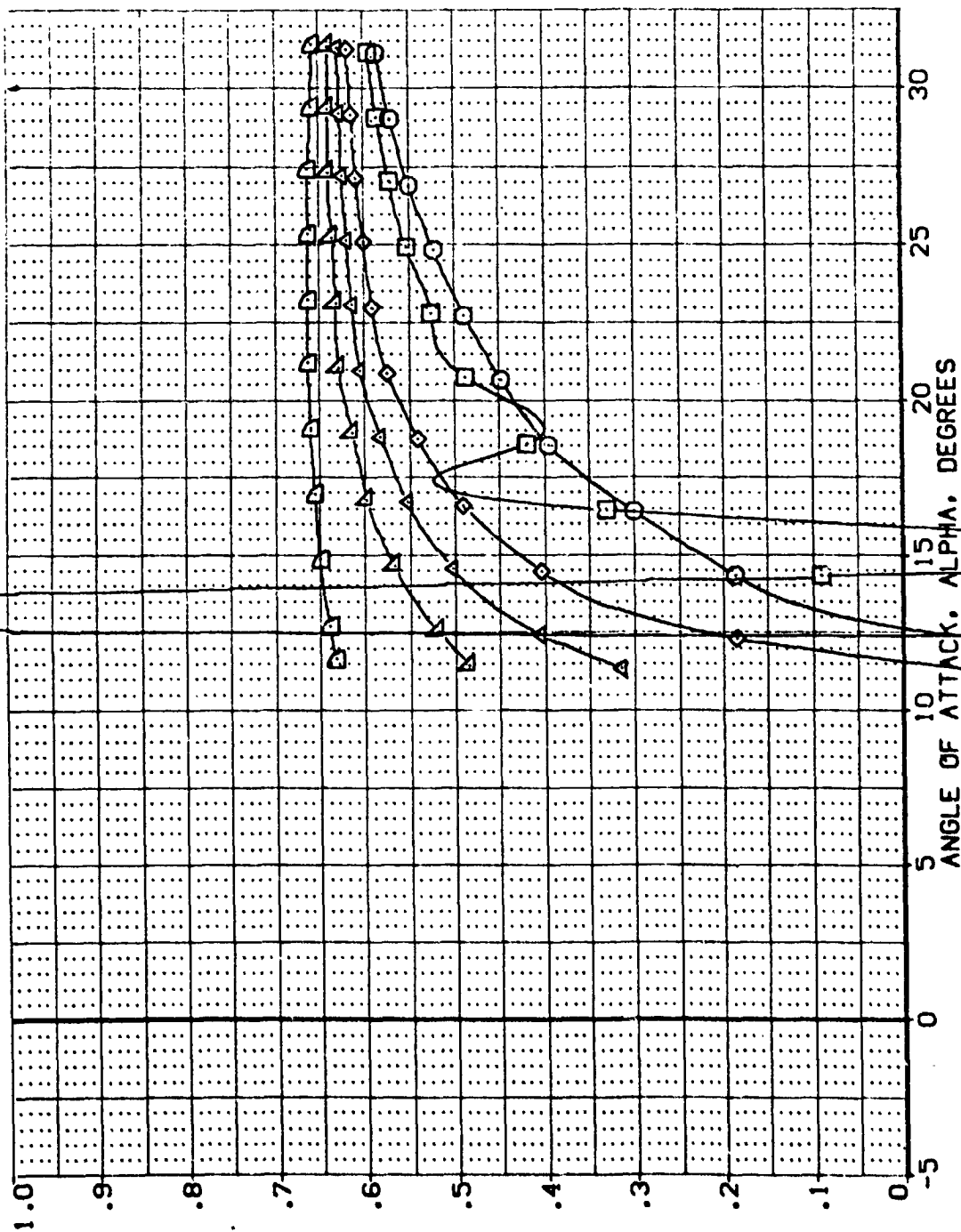


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(B02005)	0A528 B26C9G1S47F8 V116E28V8RSX9	-40.000	.068	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02006)	0A528 B26C9G1S47F8 V116E28V8RSX9	-30.000	.068	25.000	-12.000	LREF 19.2799 INCHES
(B02007)	0A528 B26C9G1S47F8 V116E28V8RSX9	-20.000	.068	25.000	-12.000	BREF 37.9359 INCHES
(B02008)	0A528 B26C9G1S47F8 V116E28V8RSX9	-15.000	.068	25.000	-12.000	XMRP 43.5971 INCHES
(B02009)	0A528 B26C9G1S47F8 V116E28V8RSX9	-10.000	.068	25.000	-12.000	YMRP 0.000 INCHES
(B02010)	0A528 B26C9G1S47F8 V116E28V8RSX9	.000	.068	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

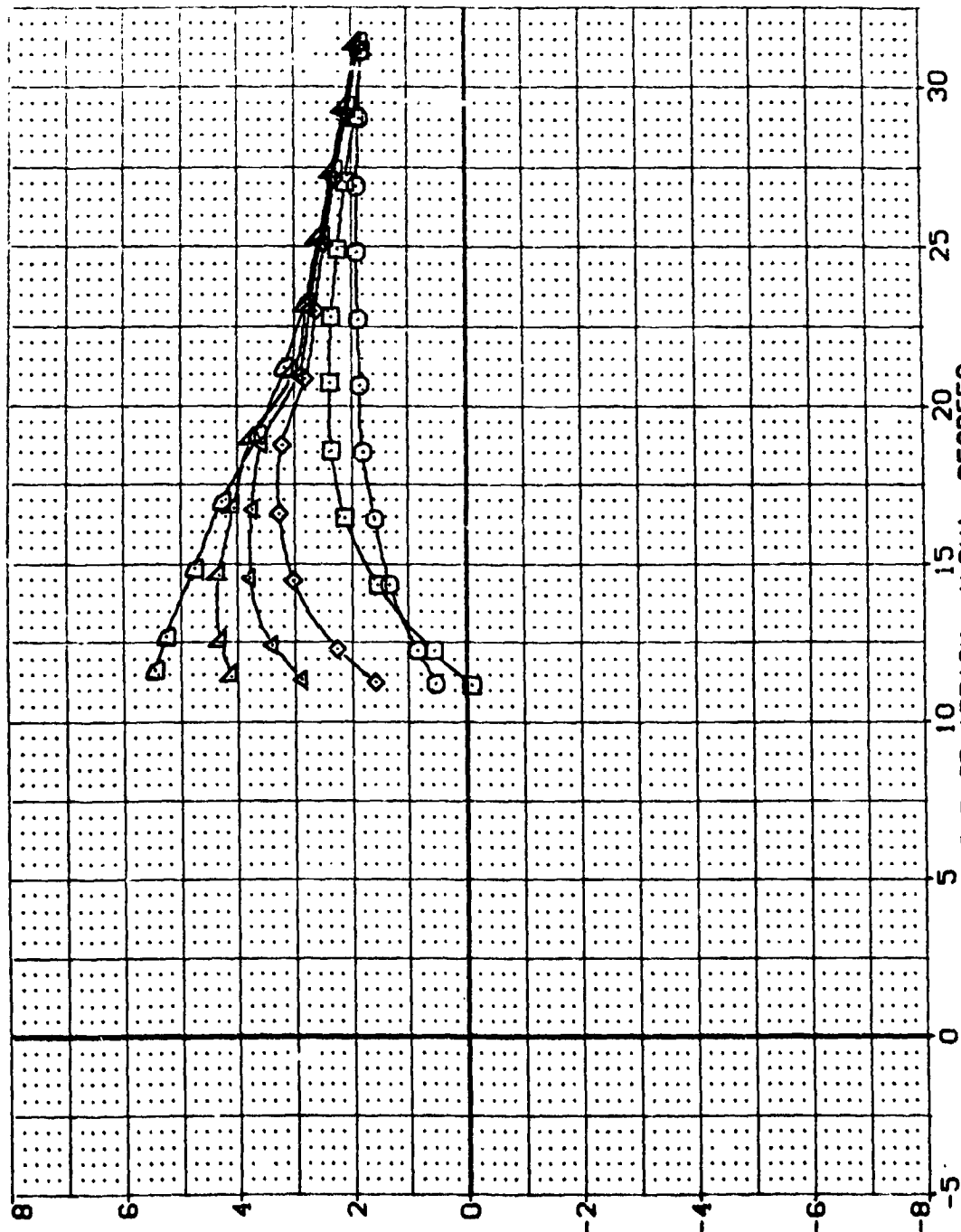


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(A)MACH = .20

(10Z035)

0A62B B26C9G15M7F8 W116E28V8R5X9

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BETA	AILRON	SPORBK	DELTON	DATASET	DELTON	SREF	SO.FT.
O	10.000	WCLAP	.200	-12.000	.000	10.000	10Z035	-30.000	19.2299	INCHES
		BLDER	.000	.000	25.000	-20.000	10Z037	-15.000	37.9359	INCHES
		H/BW	.068	.000	.000	-10.000	10Z040	-5.000	43.5974	INCHES
						.000	10Z043	5.000	10.000	INCHES
						10.000	10Z044	15.000	15.1875	INCHES
							10Z042	15.000	.0405	SCALE

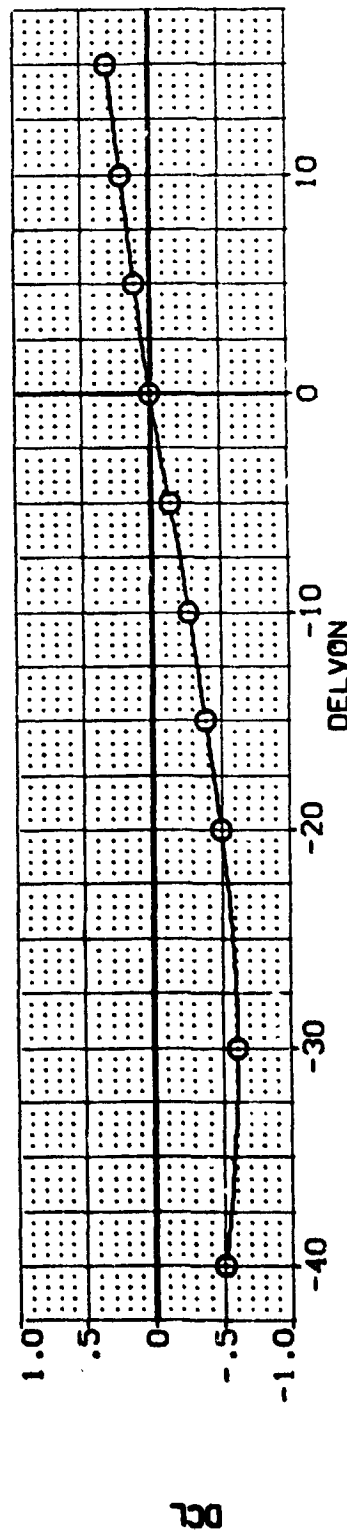
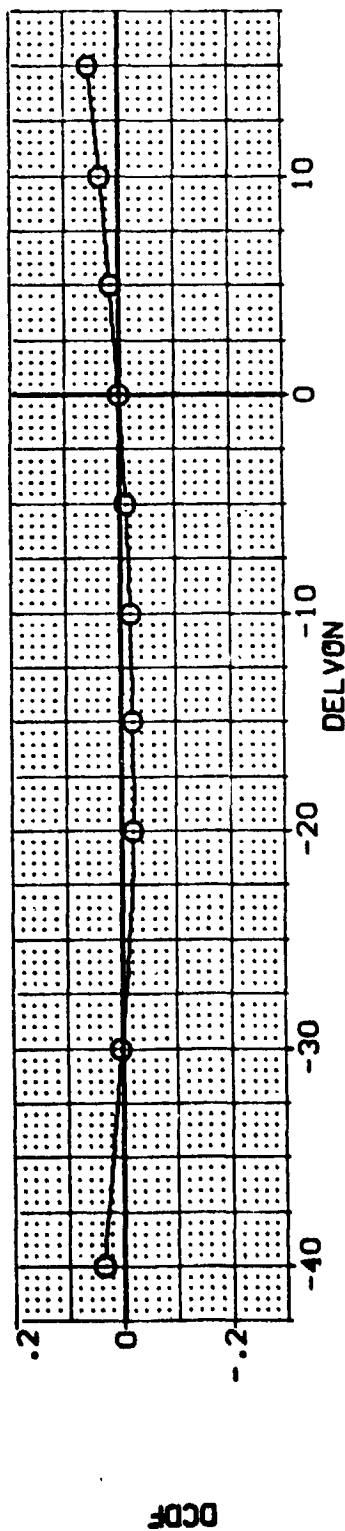
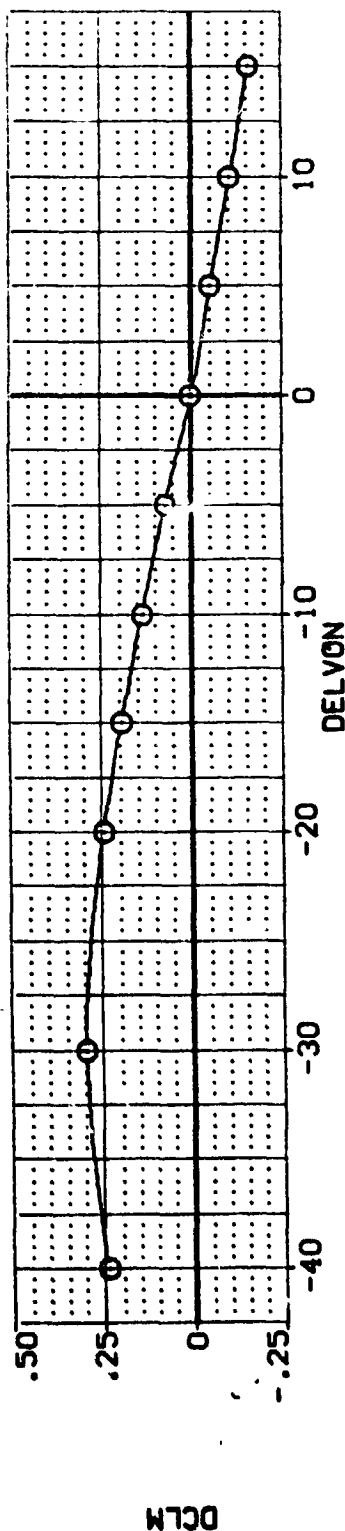


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

0A628 B26C9G15M7F8 W116E28V8R5X9

(1D2035)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
O	15.000		BETA	.000	ID2035	-30.000	4.4119	50 FT.
		EDFLAP	-12.000	.000	ID2035	-15.000	19.2289	INCHES
		RUDER	.000	25.000	ID2037	-5.000	37.5359	INCHES
		H/BW	.068		ID2039	5.000	43.5974	INCHES
					ID2041	15.000	15.1875	INCHES
					ID2042	10.000	.0405	SCALE

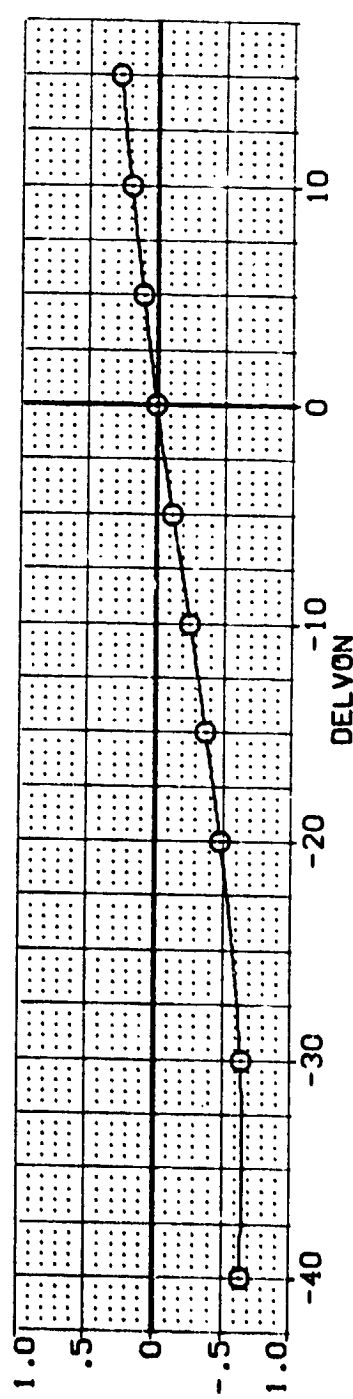
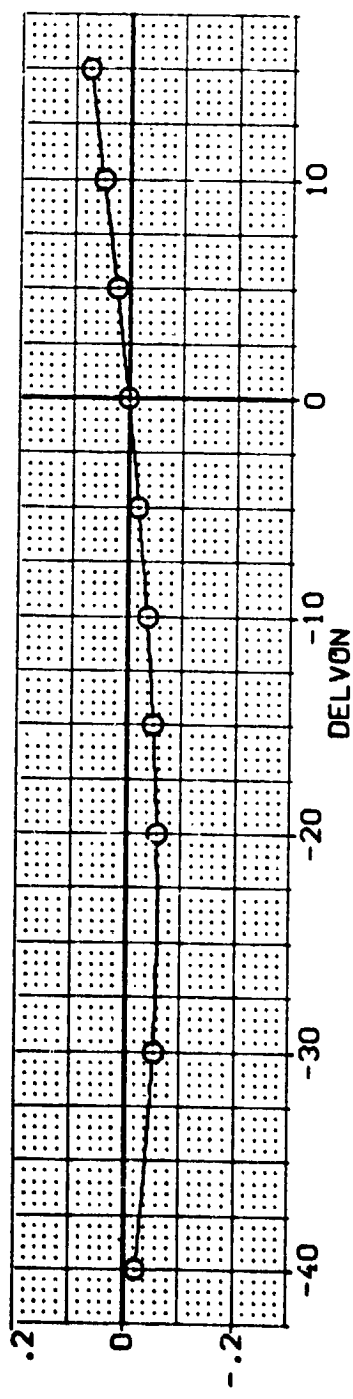
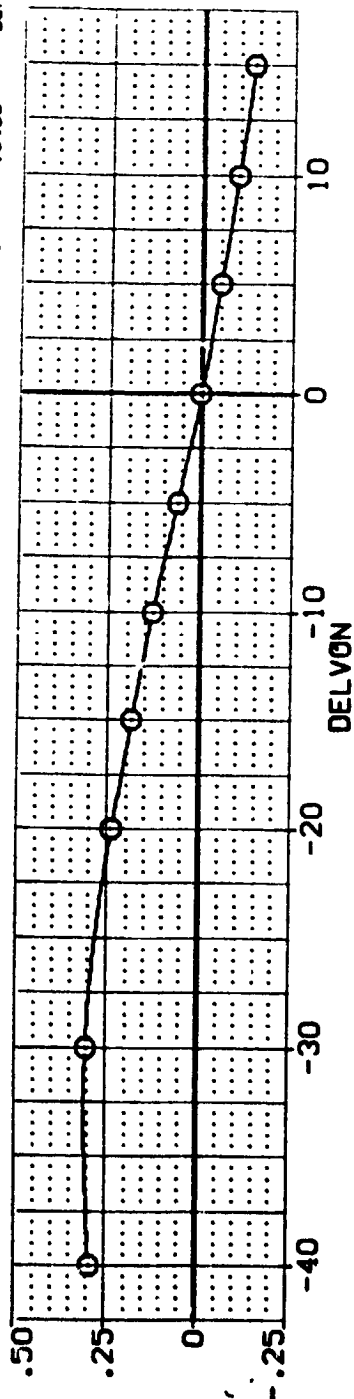


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

0A628 B26C9G15M7F8 W116E28V8R5X9

(1DZ035)

SYMBOL	ALPHA	WACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
0	20.000	.000	BETA	.000	1DZ035	-40.000	4.4119	50. FT.
		.000	ALLRON	.000	1DZ037	-20.000	19.2299	INCHES
		.000	SPORRK	25.000	1DZ039	-10.000	37.9359	INCHES
		.068	H/BW	.000	1DZ041	5.000	43.5974	INCHES
				.000	1DZ043	15.000	15.1875	INCHES
				.000	1DZ044	15.000	.0405	SCALE

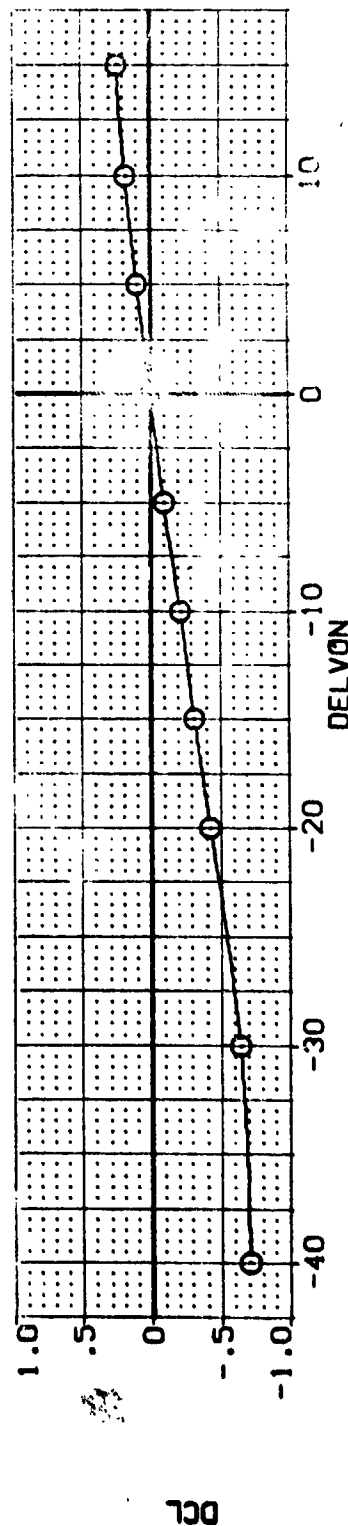
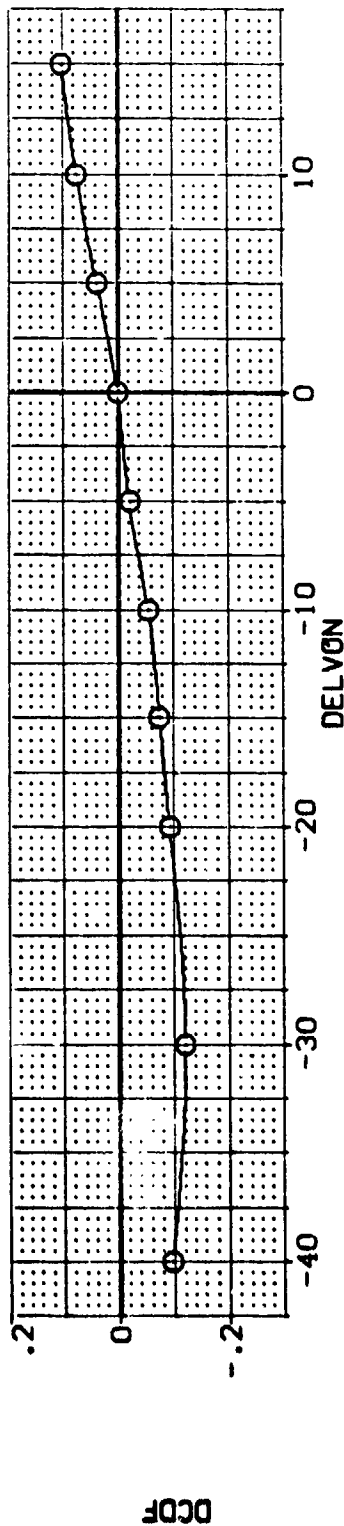
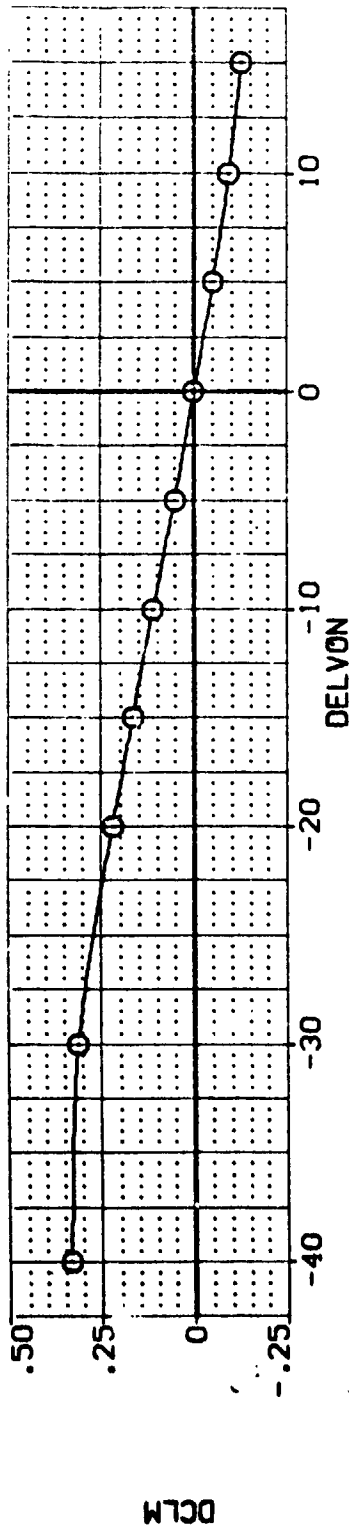


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068







0A628 B26C9G15M7F8 W116E28V8R5X9

(1DZ035)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION				
		MACH	BETA	ATLRON	SPOBRK	DELTON	DATASET	DELTON	SREF	LREF	SQ.FT.	INCHES
O	30.000	BOFLAP	.200	-12.000		.000	IDZ035	-40.000		19.2298		
		RUDER	.000			25.000	IDZ037	-20.000		37.9359		
		H/B1	.068			-10.000	IDZ039	-5.000		43.5974		
						.000	IDZ041	15.000		.0000		
						10.000	IDZ042	15.000		15.1875		
								SCALE		.0405		

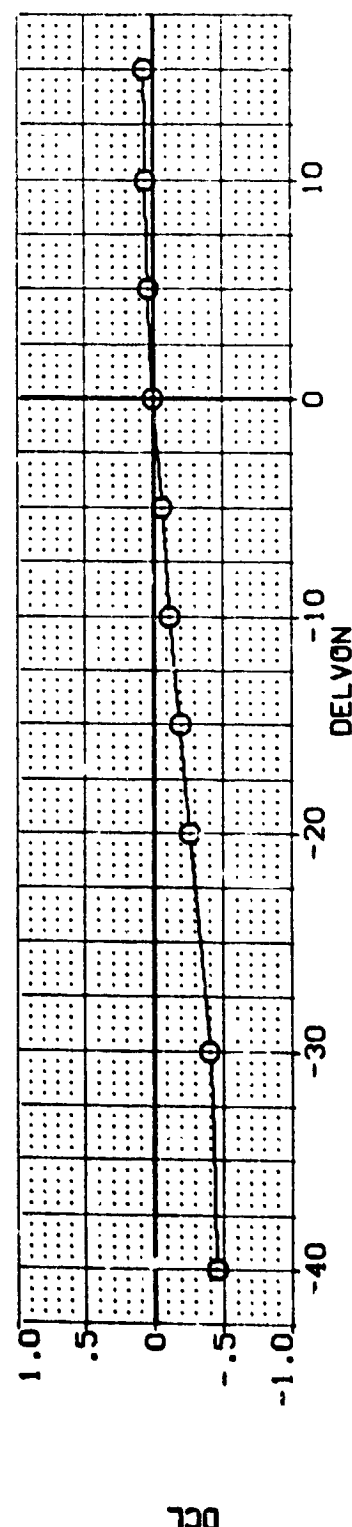
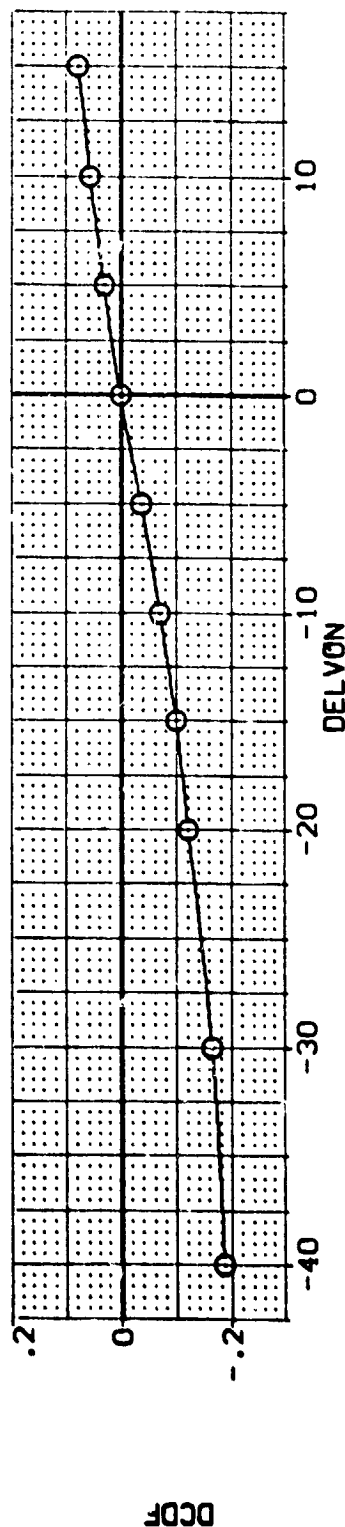
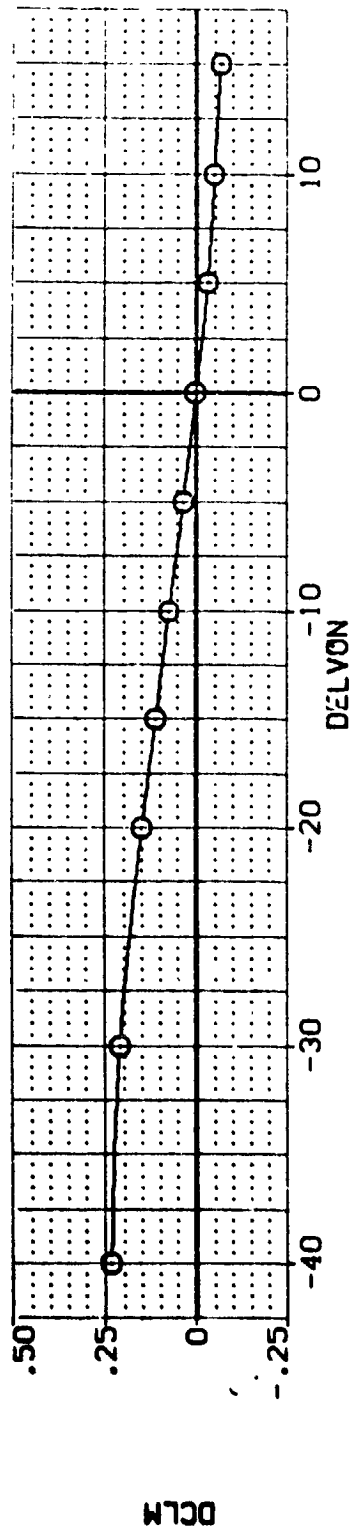


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ035)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SCALE	REFERENCE INFORMATION
O	10.000		BETA	.000	1DZ035	-30.000	4.4119	50 FT
			AILRON	.000	1DZ037	-15.000	19.2299	INCHES
			SPOBRK	25.000	1DZ038	-5.000	37.9359	INCHES
			W/BV	.068	1DZ040	5.000	43.5974	INCHES
					1DZ042	10.000	.0000	INCHES
					1DZ044	15.000	15.1875	INCHES
					1DZ041	15.000	.0405	SCALE

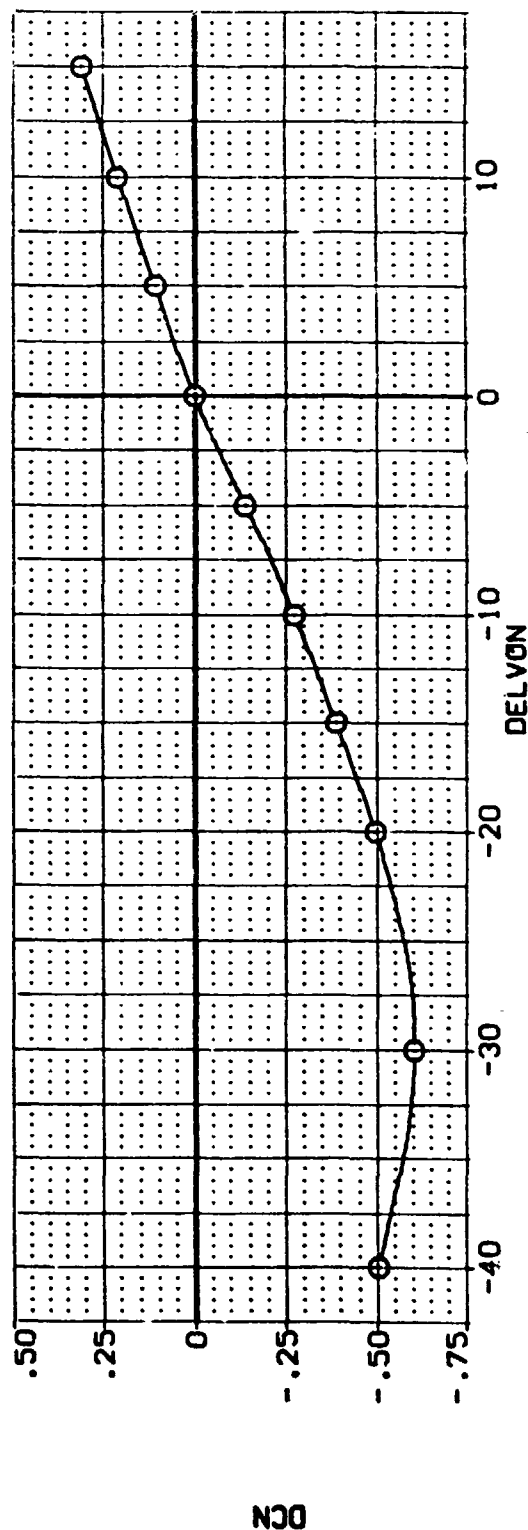
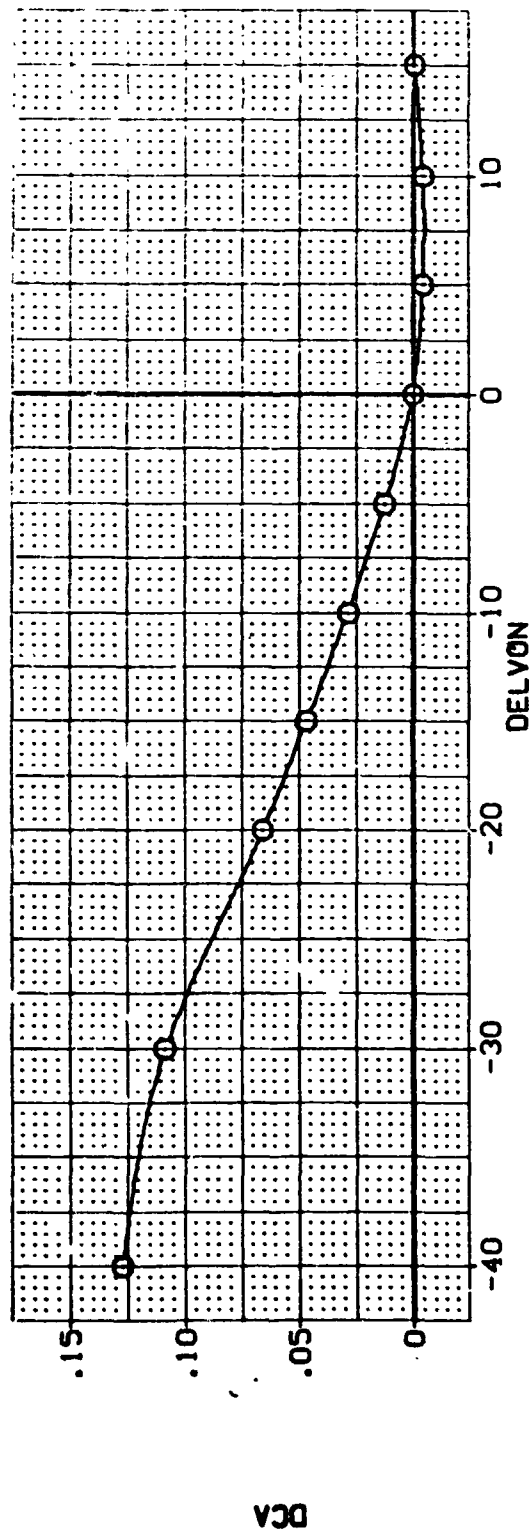


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

(1DZ035)

0A62B B26C9G15M7F8 W116E28V8R5X9

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BOTFLAP	RUDER	H/BW	DELTON	DATASET	DELTON	SREF	SCALE
O	15.000	.200	.000	.000	.068	.000	IDZ035	-30.000	4.4119	INCHES
		.12.000	.000	.000		.000	IDZ037	-15.000	19.2299	INCHES
		.000	.000	.000		.000	IDZ038	-5.000	37.9359	INCHES
						.000	IDZ040	5.000	43.5974	INCHES
						.000	IDZ043	15.000	15.1875	INCHES
						.000	IDZ041	15.000	.0405	SCALE

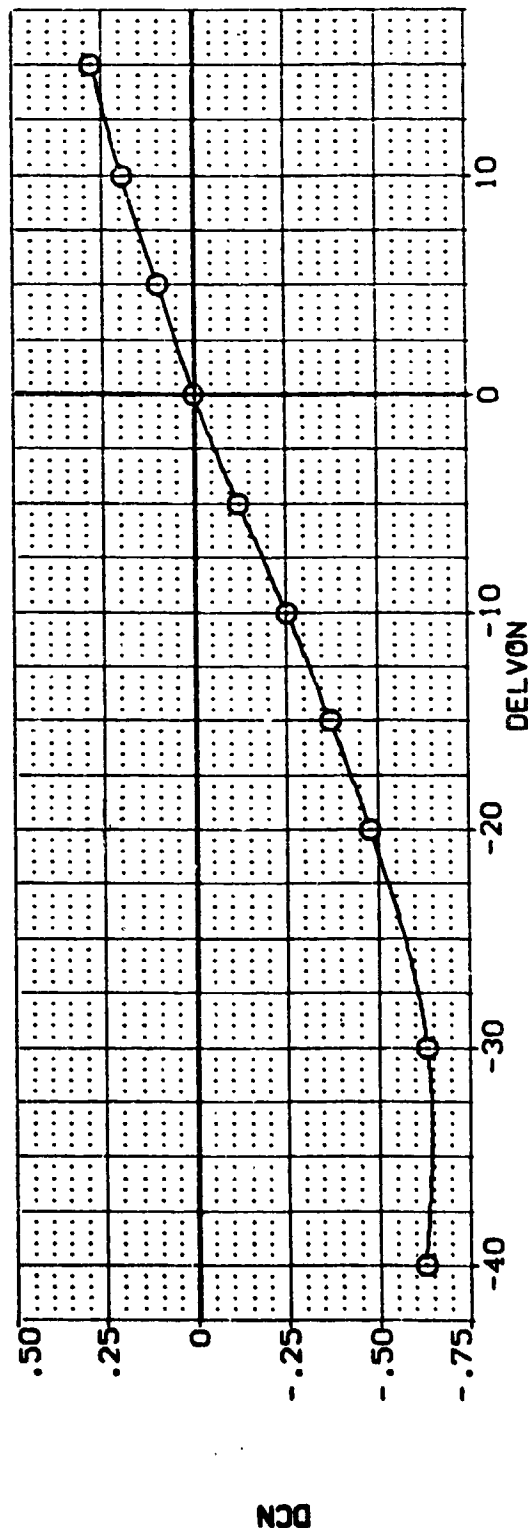
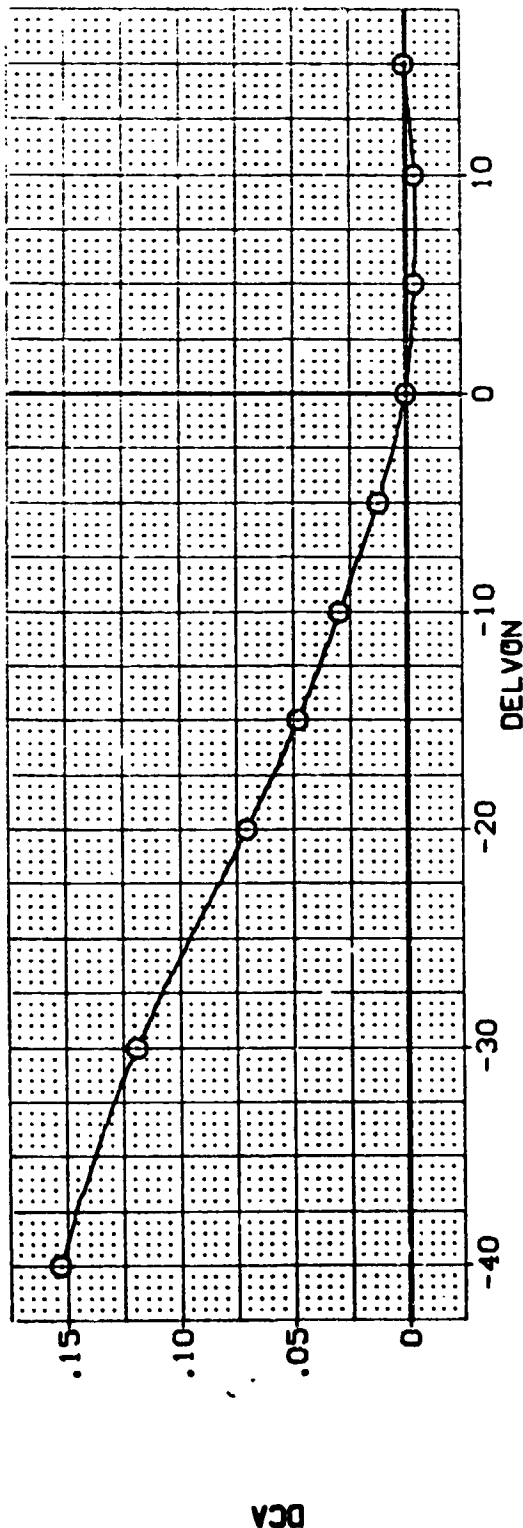


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068





(1DZ035)

0A628 B26C9G15M7F8 W116E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION				
		HAGH	BETA	AILRON	SPDRK	DELTON	DATASET	DELTON	SREF	LREF	BREF	SO.FT.
O	25.000		.200	-12.000	.000	-40.000	1DZ035	-30.000	4.4119	19.2298	37.9359	INCHES
		BOFLAP		.000	25.000	-20.000	1DZ037	-15.000			43.5974	INCHES
		RUDER		.068		-10.000	1DZ040	5.000			.0000	INCHES
		H/BW				10.000	1DZ043	15.000			15.1875	INCHES
							1DZ044	SCALE			.0405	SCALE

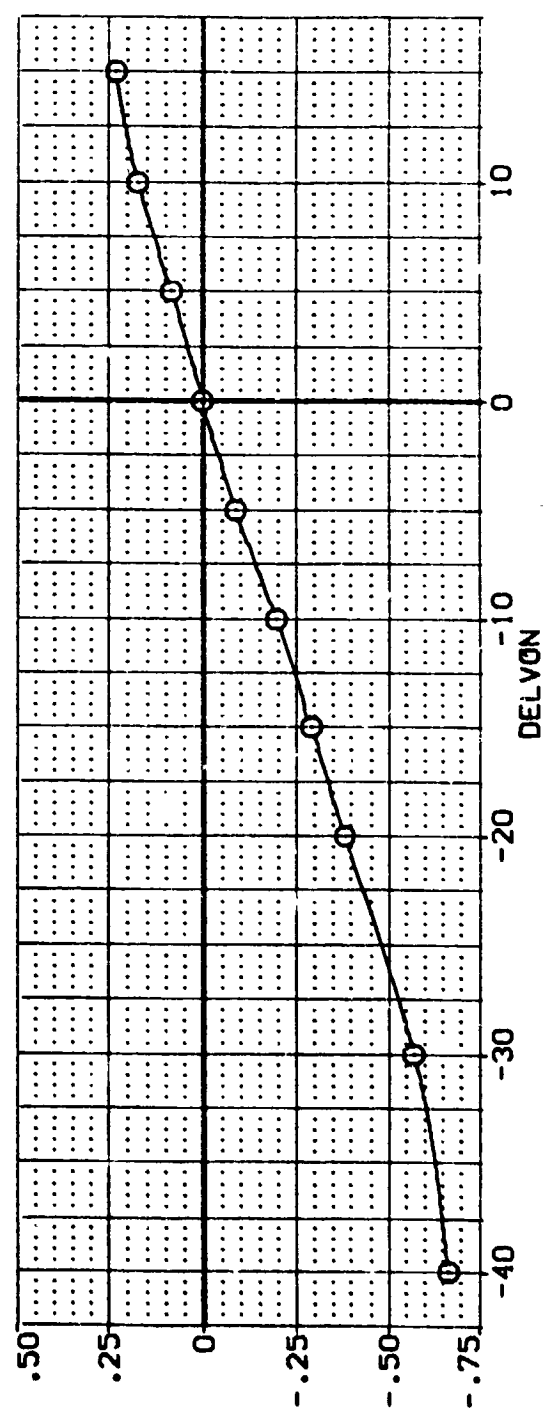
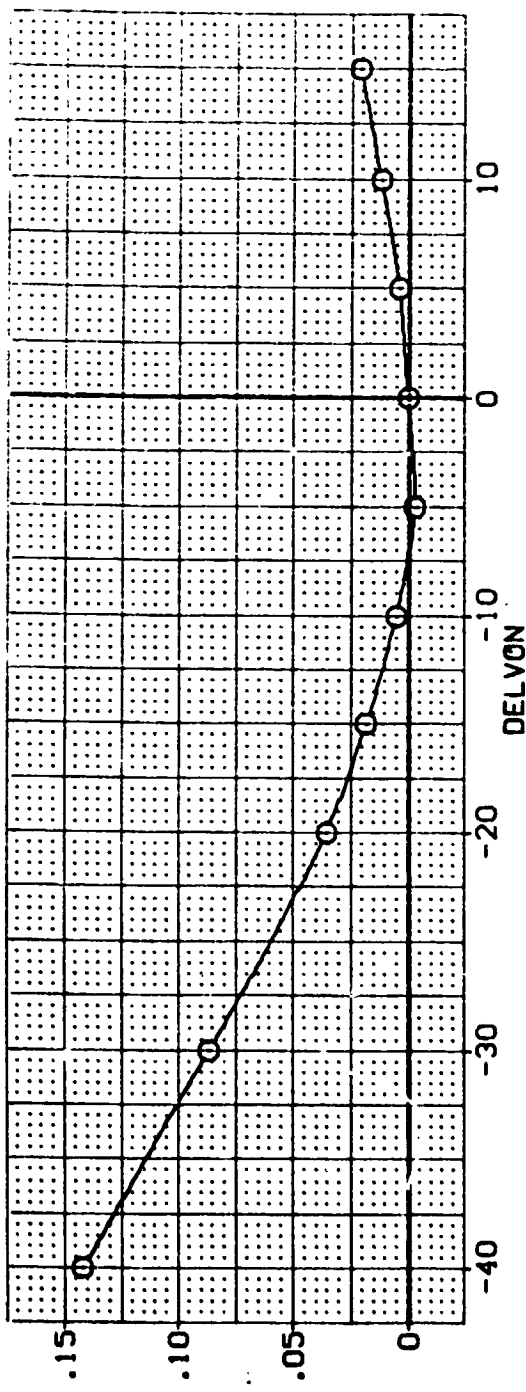


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

0A62B B26C9G15M7F8 W116E28V8R5X9 (1DZ035)  
 SYMBOL ○  
 ALPHA 30.000  
 MACH .200  
 BDFLAP -12.000  
 RUDDER .000  
 H/BW .068  
 PARAMETRIC VALUES  
 BETA .000  
 ALLRON 25.000  
 SPDRK .000  
 DATASET .000  
 IDZ035 .000  
 IDZ037 25.000  
 IDZ039 .000  
 IDZ044 .000  
 IDZ042 .000  
 DATA SOURCE  
 DELVON -40.000  
 -20.000  
 -10.000  
 10.000  
 DATASET  
 IDZ035  
 IDZ036  
 IDZ037  
 IDZ038  
 IDZ039  
 IDZ040  
 IDZ041  
 IDZ042  
 DELVON  
 -30.000  
 -15.000  
 5.000  
 15.000  
 REFERENCE INFORMATION  
 SREF 4.4119  
 LREF 19.2299  
 BREF 37.9359  
 XMRP 43.5974  
 YMRP .0000  
 ZMRP 15.1875  
 SCALE .0405  
 SO.FT. INCHES INCHES INCHES INCHES INCHES INCHES

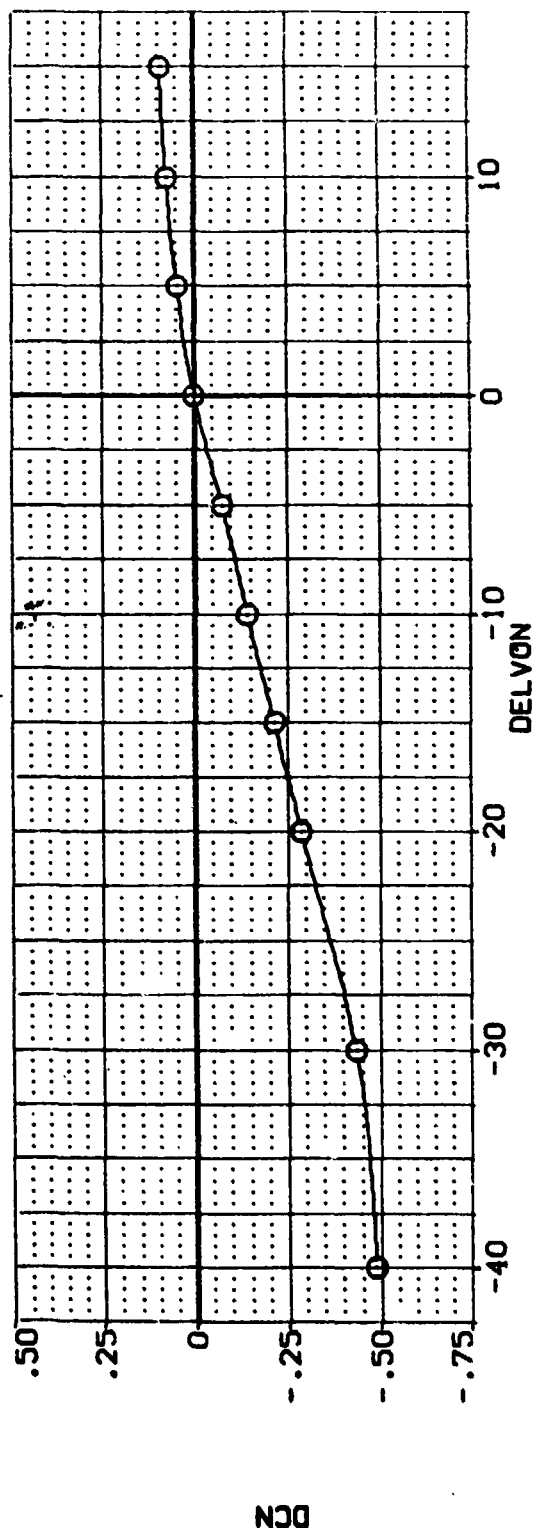
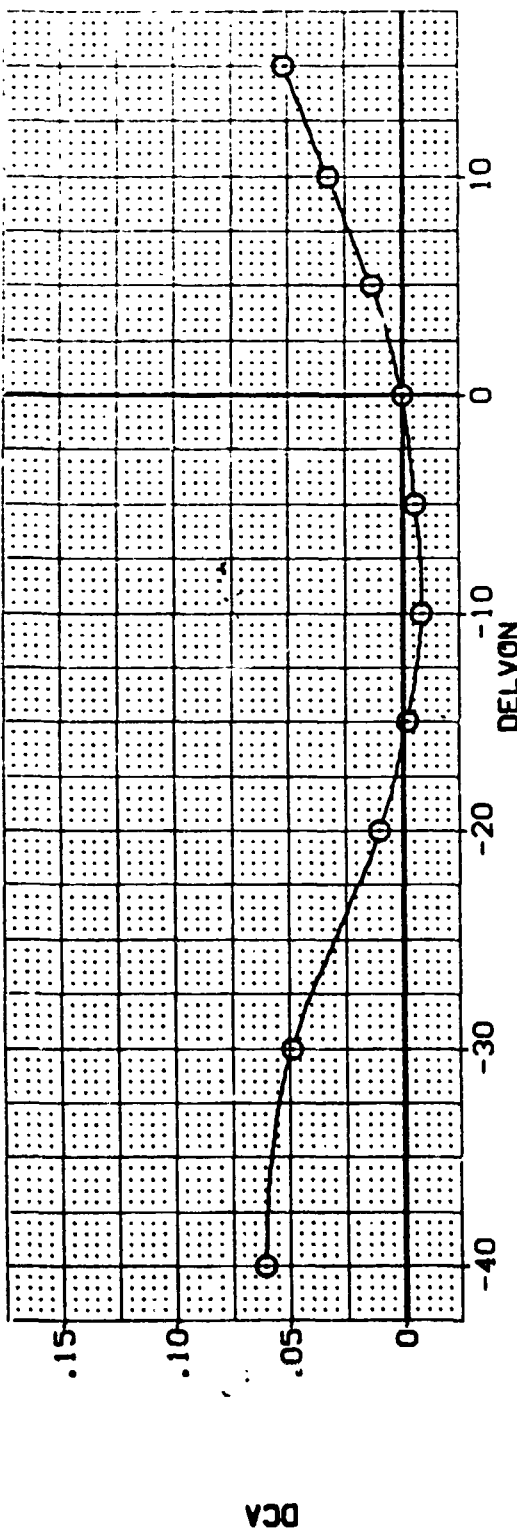


FIG 8 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.068

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORAK	BOFLAP	REFERENCE INFORMATION
(B02055)	QAE28 B26C9G1SMT78	-5.00	.035	25.000	-12.000	SREF 4.4119 SO.FT INCHES
(B02049)	QAE28 B26C9G1SMT78	5.000	.035	25.000	-12.000	LREF 19.2298 INCHES
(B02050)	QAE28 B26C9G1SMT78	10.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(B02051)	QAE28 B26C9G1SMT78	15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(B02052)	QAE28 B26C9G1SMT78					YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

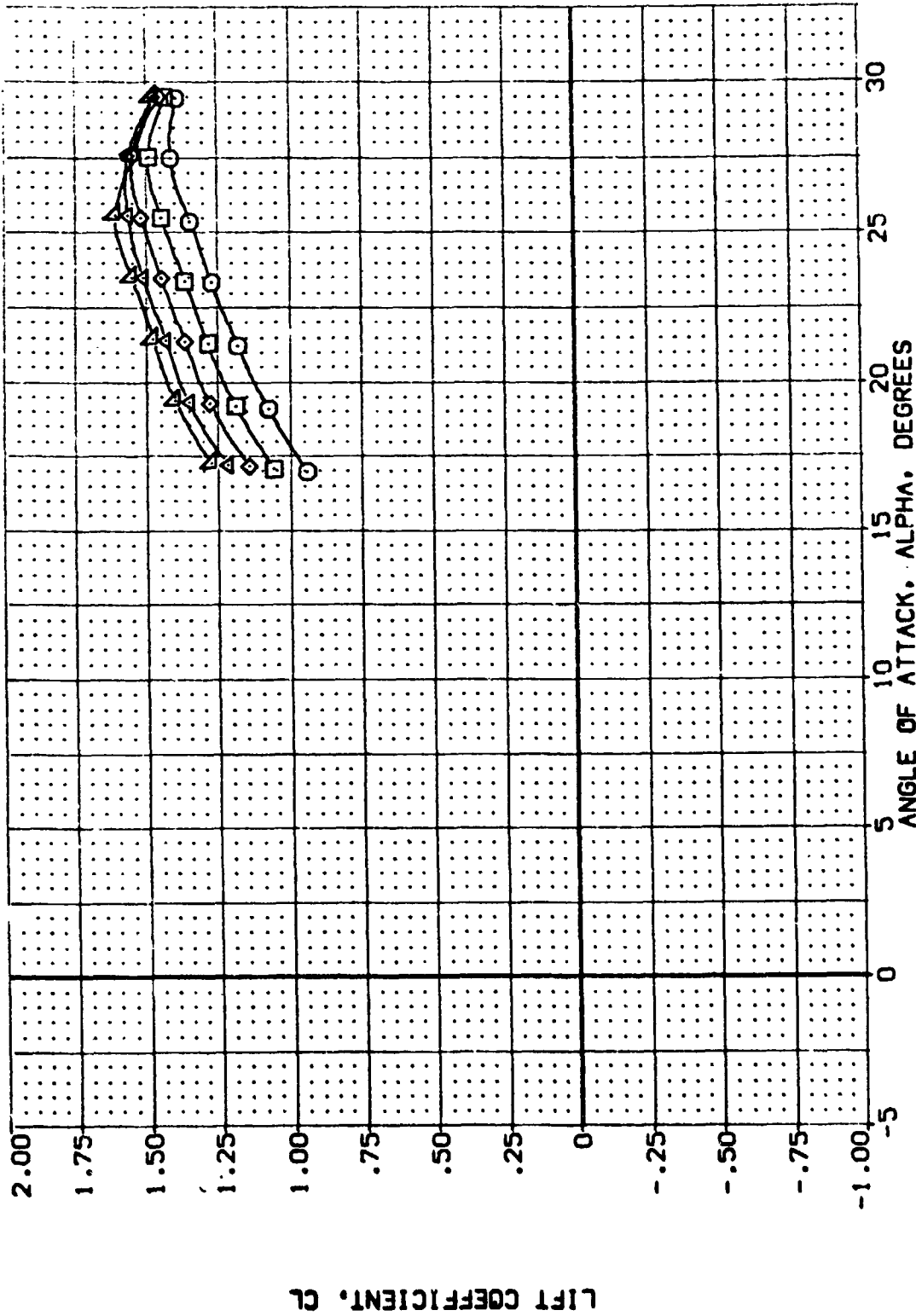


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SFOBRK	BOFLAP	REFERENCE INFORMATION
(B02035)	0A528 B26C9G1S47F8 V116E28V8RSX9	-5.000	.035	25.000	-12.000	SREF 4.4119 50. FT
(B02049)	0A528 B26C9G1S47F8 V116E28V8RSX9	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(B02050)	0A528 B26C9G1S47F8 V116E28V8RSX9	5.000	.035	25.000	-12.000	BREF 37.5359 INCHES
(B02051)	0A528 B26C9G1S47F8 V116E28V8RSX9	10.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(B02052)	0A528 B26C9G1S47F8 V116E28V8RSX9	15.000	.035	25.000	-12.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

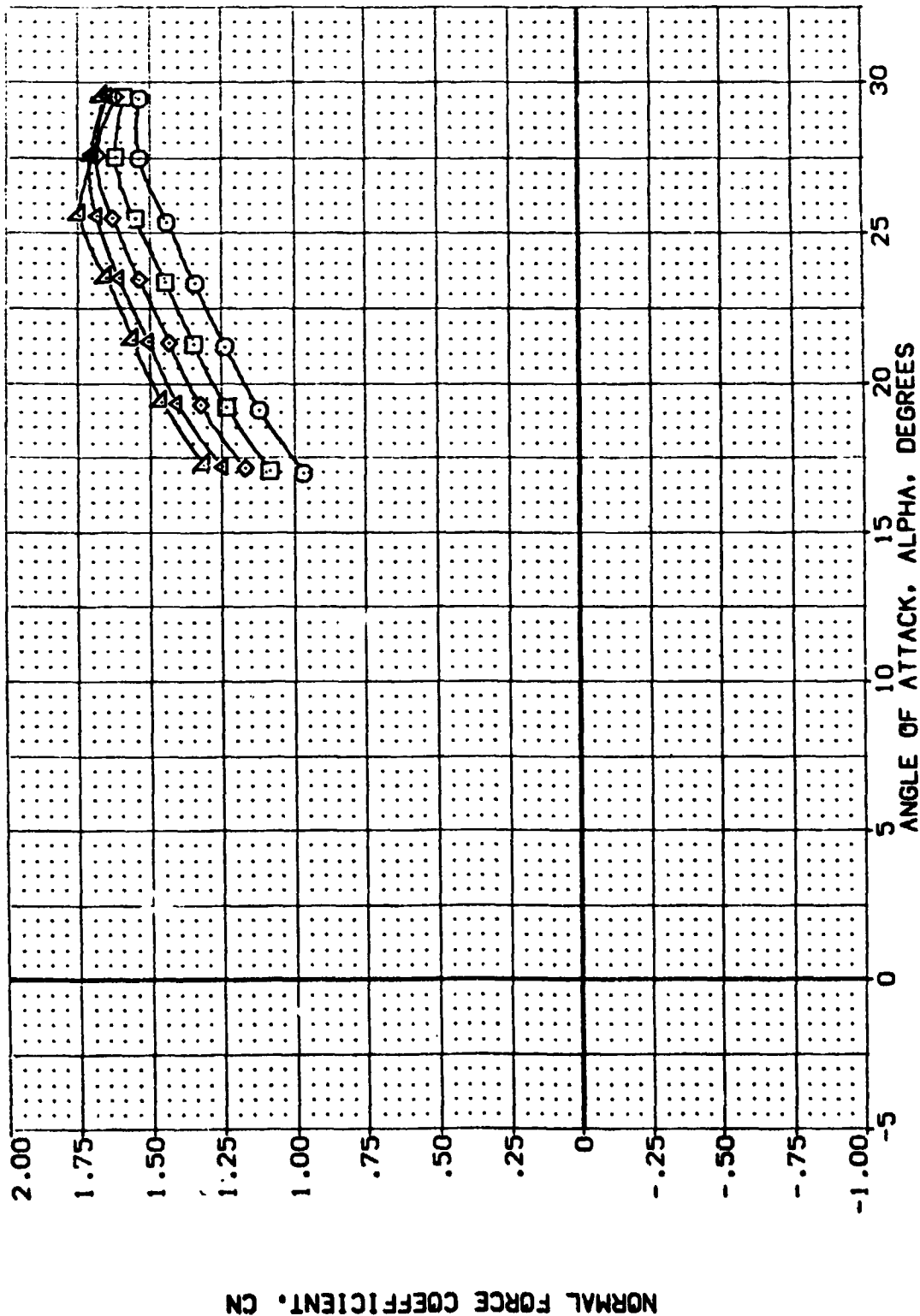


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035



3

4

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOOR	BOFLAP	REFERENCE INFORMATION
(802051)	QAS28 B26C9G1SM7F8	-5.000	.035	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(802049)	QAS28 B26C9G1SM7F8	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(802050)	QAS28 B26C9G1SM7F8	5.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(802051)	QAS28 B26C9G1SM7F8	10.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(802052)	QAS28 B26C9G1SM7F8	15.000	.035	25.000	-12.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

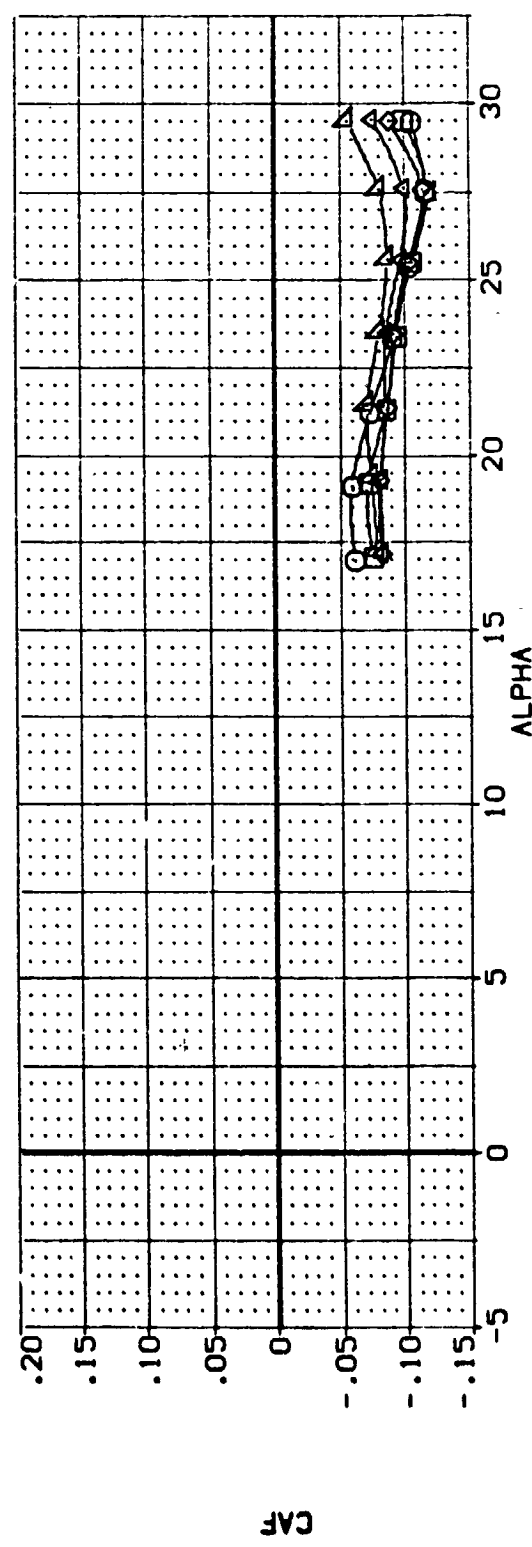
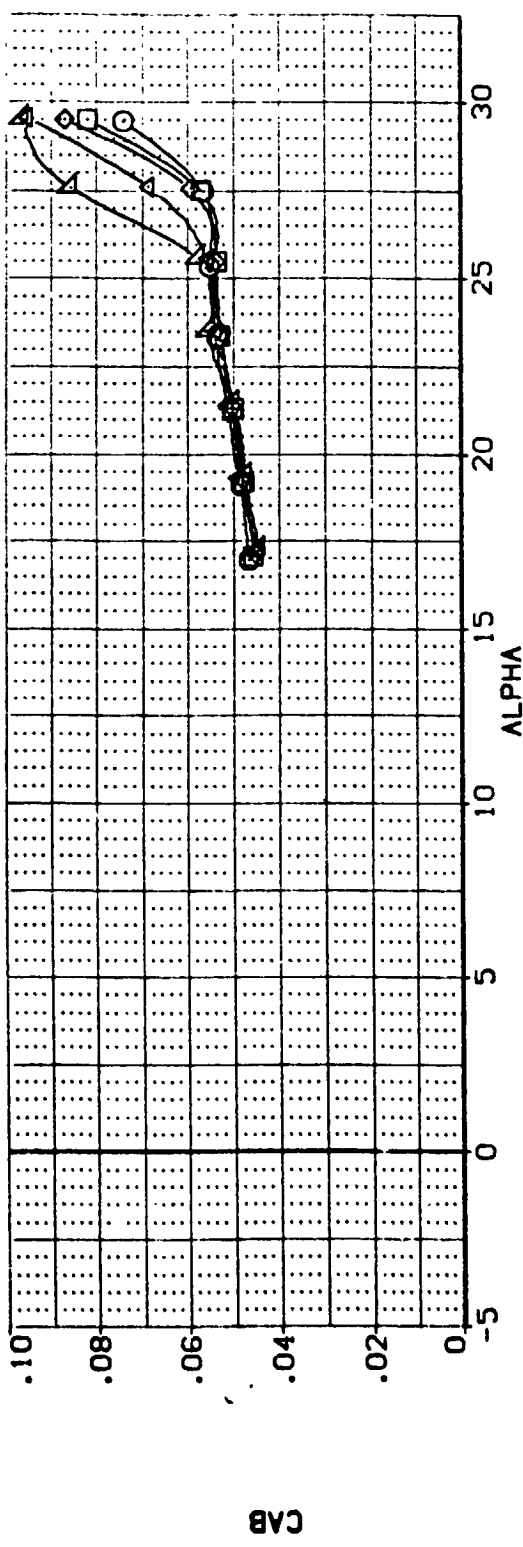


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802051)	0A628 B26C9G15H7F8 V116E28V8R5X9	-5.000	.035	25.000	-12.000	SREF 4.4119 SO.FT.
(802049)	0A628 B26C9G15H7F8 V116E28V8R5X9	5.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(802050)	0A628 B26C9G15H7F8 V116E28V8R5X9	10.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(802051)	0A628 B26C9G15H7F8 V116E28V8R5X9	15.000	.035	25.000	-12.000	XMRP 43.1974 INCHES
(802052)	0A628 B26C9G15H7F8 V116E28V8R5X9					ZMRP 15.1875 INCHES
						SCALE .0405

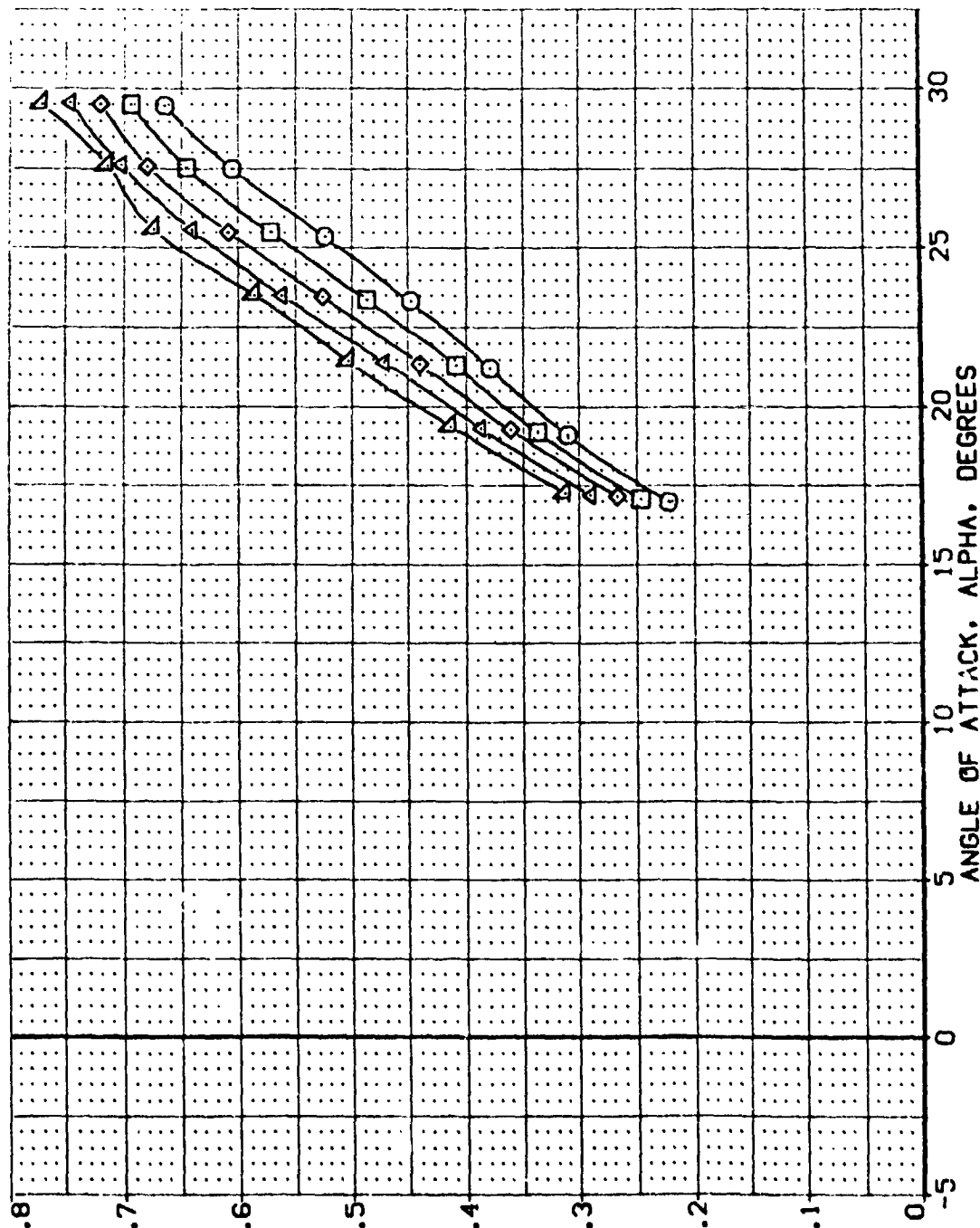


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

-(A)M/CH = .20

# PITCHING MOMENT COEFFICIENT, CLM

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(802055)	0A528 B26C9G1SM7F8 V116E28V8R5X9	-5.000	.035	25.000	-12.000	SREF 4.4119 50.F1
(802049)	0A528 B26C9G1SM7F8 V116E28V8R5X9	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(802050)	0A528 B26C9G1SM7F8 V116E28V8R5X9	5.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(802051)	0A528 B26C9G1SM7F8 V116E28V8R5X9	10.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(802052)	0A528 B26C9G1SM7F8 V116E28V8R5X9	15.000	.035	25.000	-12.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

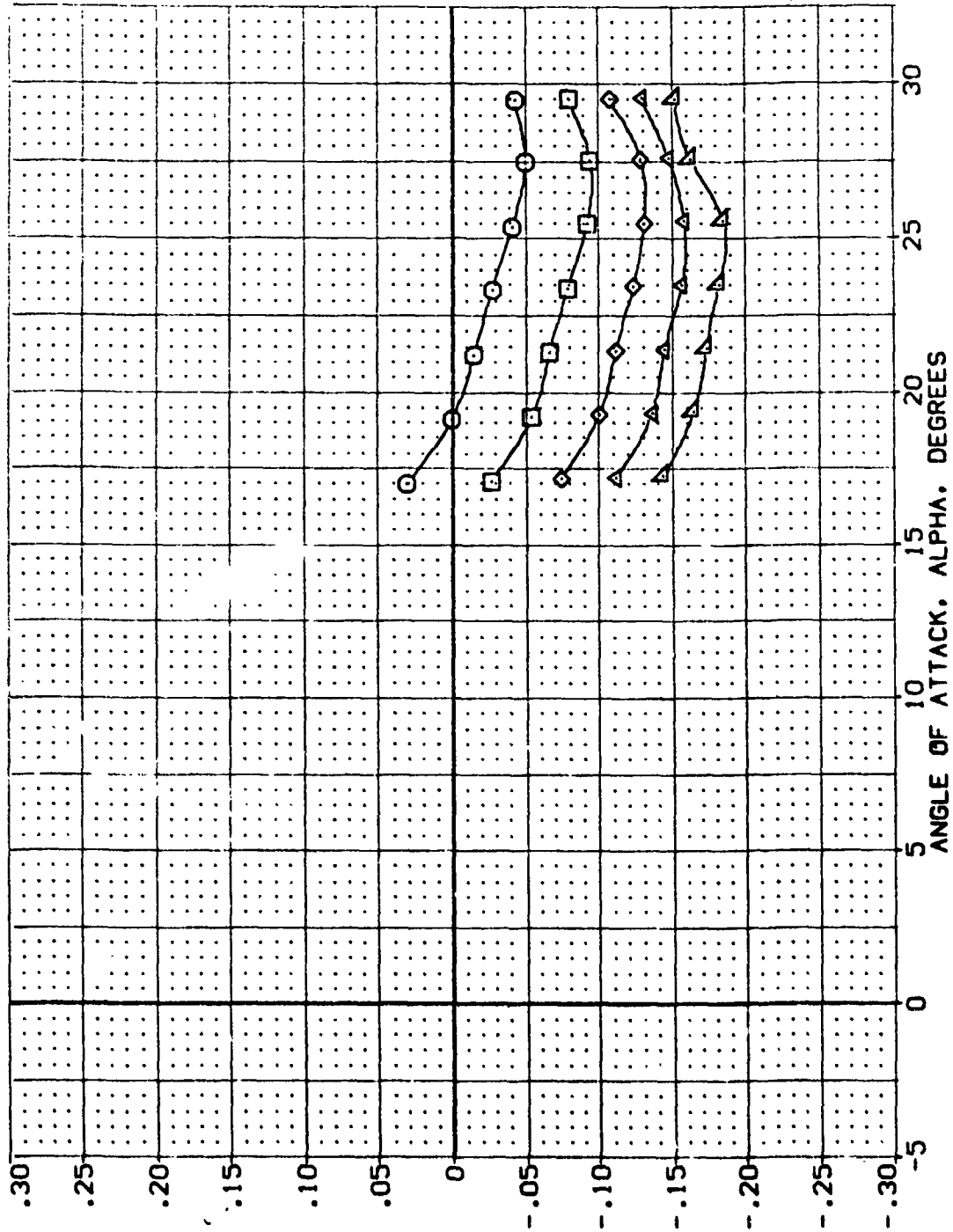


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
-5.000	.035	25.000	-12.000	SAEF 4.4119 50. FT
.000	.035	25.000	-12.000	LREF 19.2299 INCHES
5.000	.035	25.000	-12.000	BREF 37.5359 INCHES
10.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
15.000	.035	25.000	-12.000	ZMRP 15.1875 INCHES
				SCALE .0405

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B02055)	QAS28 B26C5G154778 V111E28V8RSX9
(B02049)	QAS28 B26C5G154778 V111E28V8RSX9
(B02050)	QAS28 B26C5G154778 V111E28V8RSX9
(B02051)	QAS28 B26C5G154778 V111E28V8RSX9
(B02052)	QAS28 B26C5G154778 V111E28V8RSX9

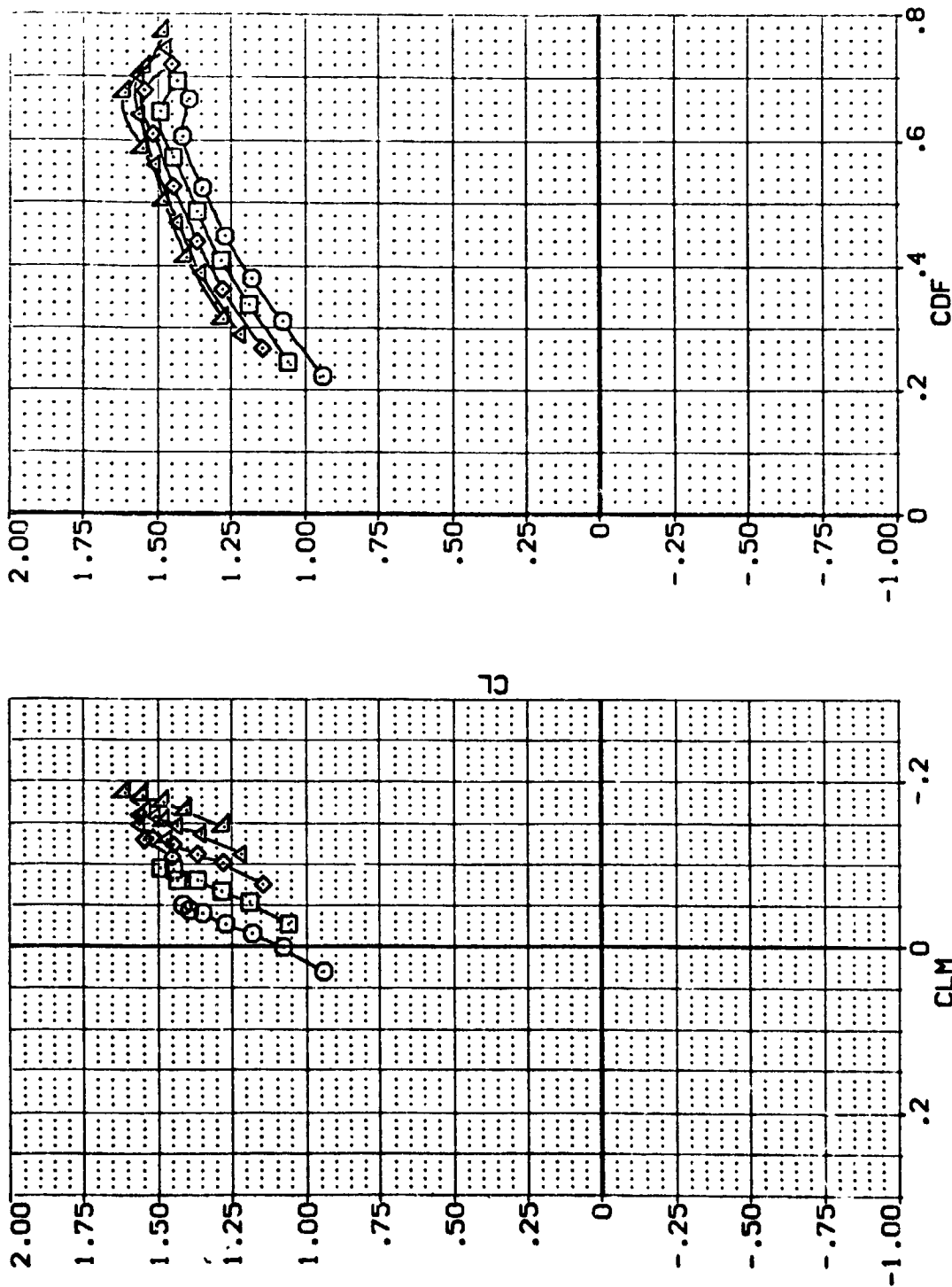


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20



# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(B02055) OAS28 B26C9G1547F8 VII16E28V8RSX9  
 (B02049) OAS28 B26C9G1547F8 VII16E28V8RSX9  
 (B02050) OAS28 B26C9G1547F8 VII16E28V8RSX9  
 (B02051) OAS28 B26C9G1547F8 VII16E28V8RSX9  
 (B02052) OAS28 B26C9G1547F8 VII16E28V8RSX9

ELEVON H/BW SPDRBK BOFLAP REFERENCE INFORMATION  
 -5.000 .035 25.000 -12.000 SREF 4.4119 SQ.FT.  
 .000 .035 25.000 -12.000 LREF 19.2299 INCHES  
 5.000 .035 25.000 -12.000 BREF 37.9359 INCHES  
 10.000 .035 25.000 -12.000 XMRP 43.5974 INCHES  
 15.000 .035 25.000 -12.000 YMRP 15.0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 INCHES

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

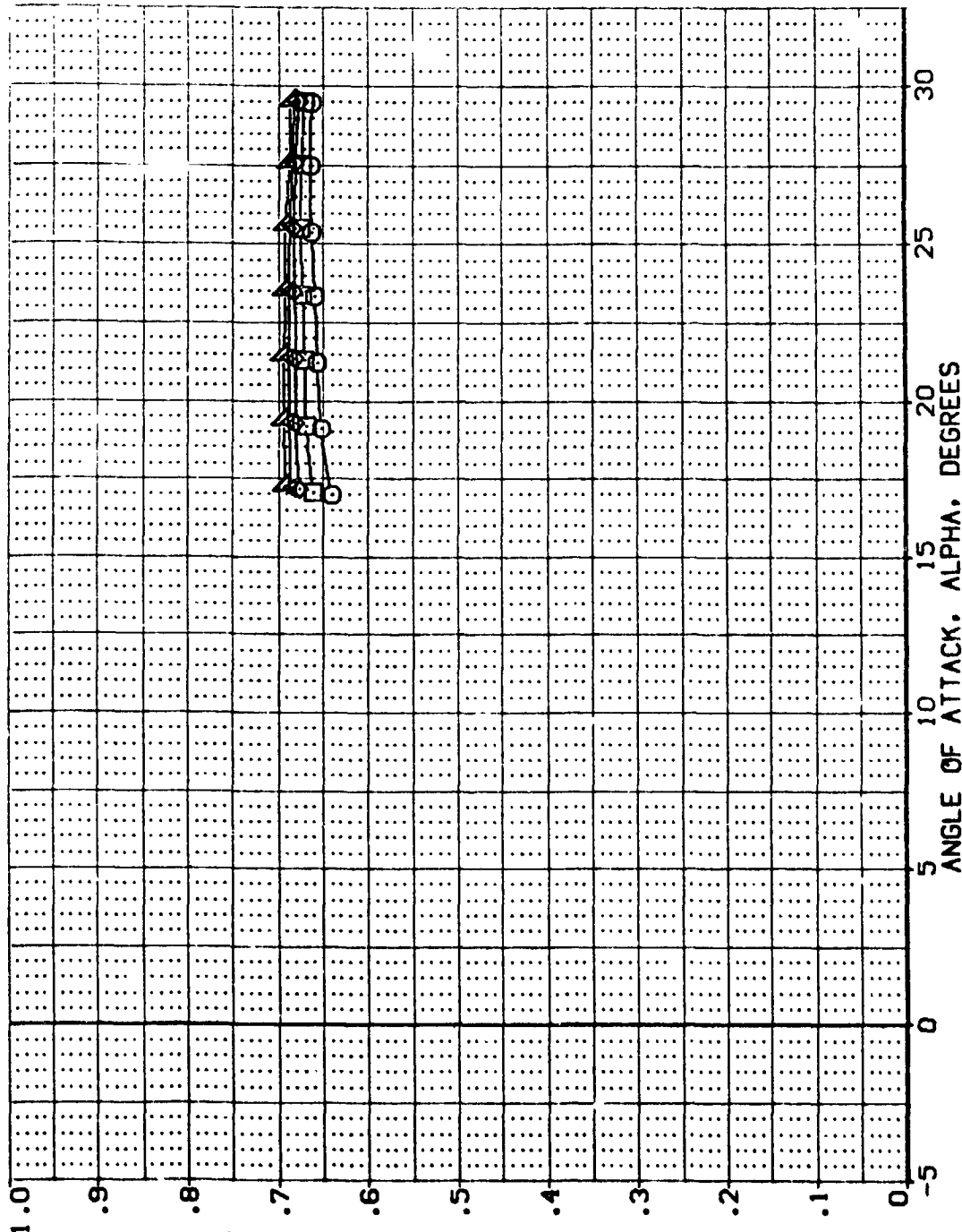


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

CATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BDFLAP	REFERENCE INFORMATION
(802055)	QAG28 B26C9G15M7F8	-5.000	.035	25.000	-12.000	SREF 4.4119 SQ.FT.
(802049)	QAG28 B26C9G15M7F8	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(802050)	QAG28 B26C9G15M7F8	5.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(802051)	QAG28 B26C9G15M7F8	10.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(802052)	QAG28 B26C9G15M7F8	15.000	.035	25.000	-12.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

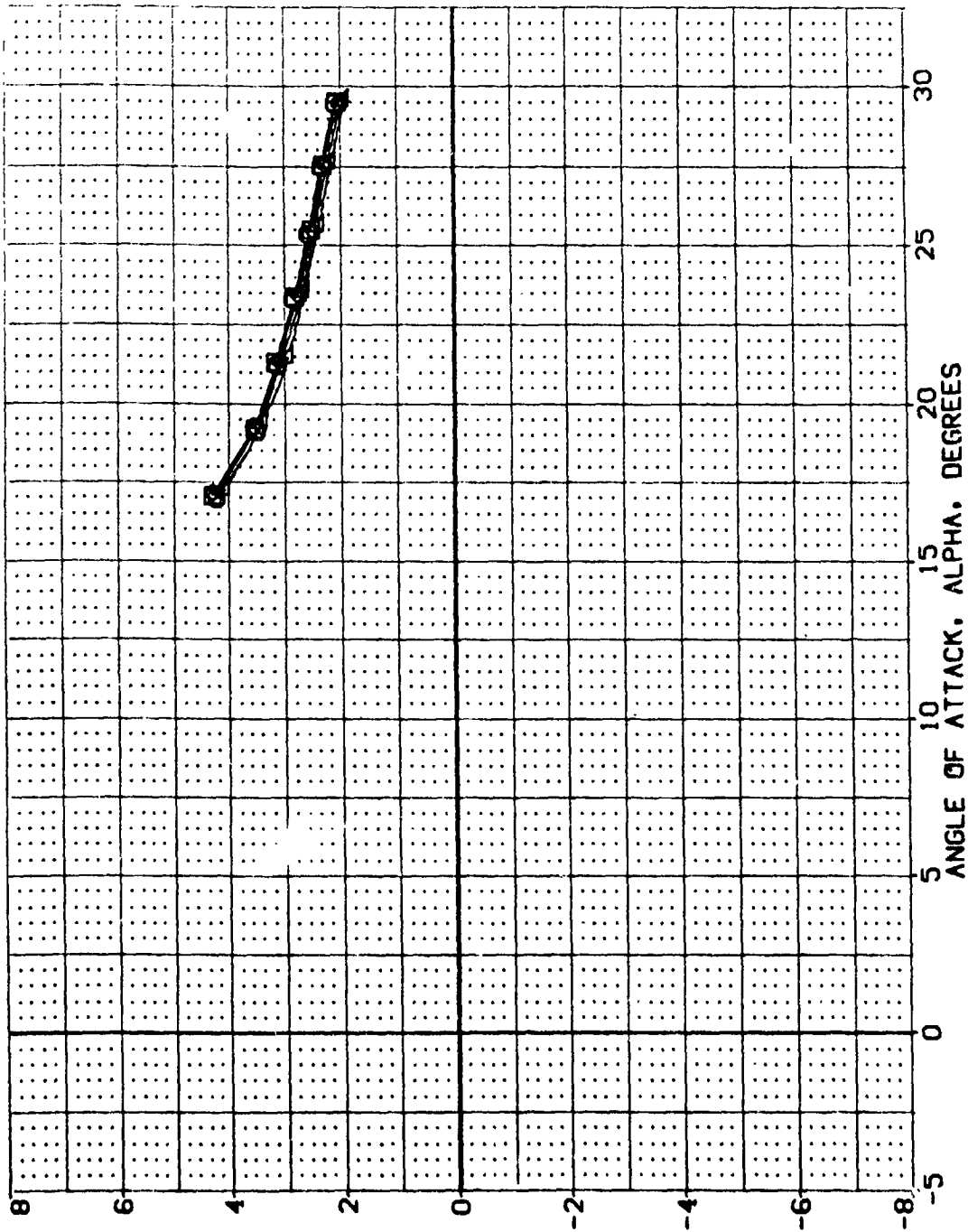
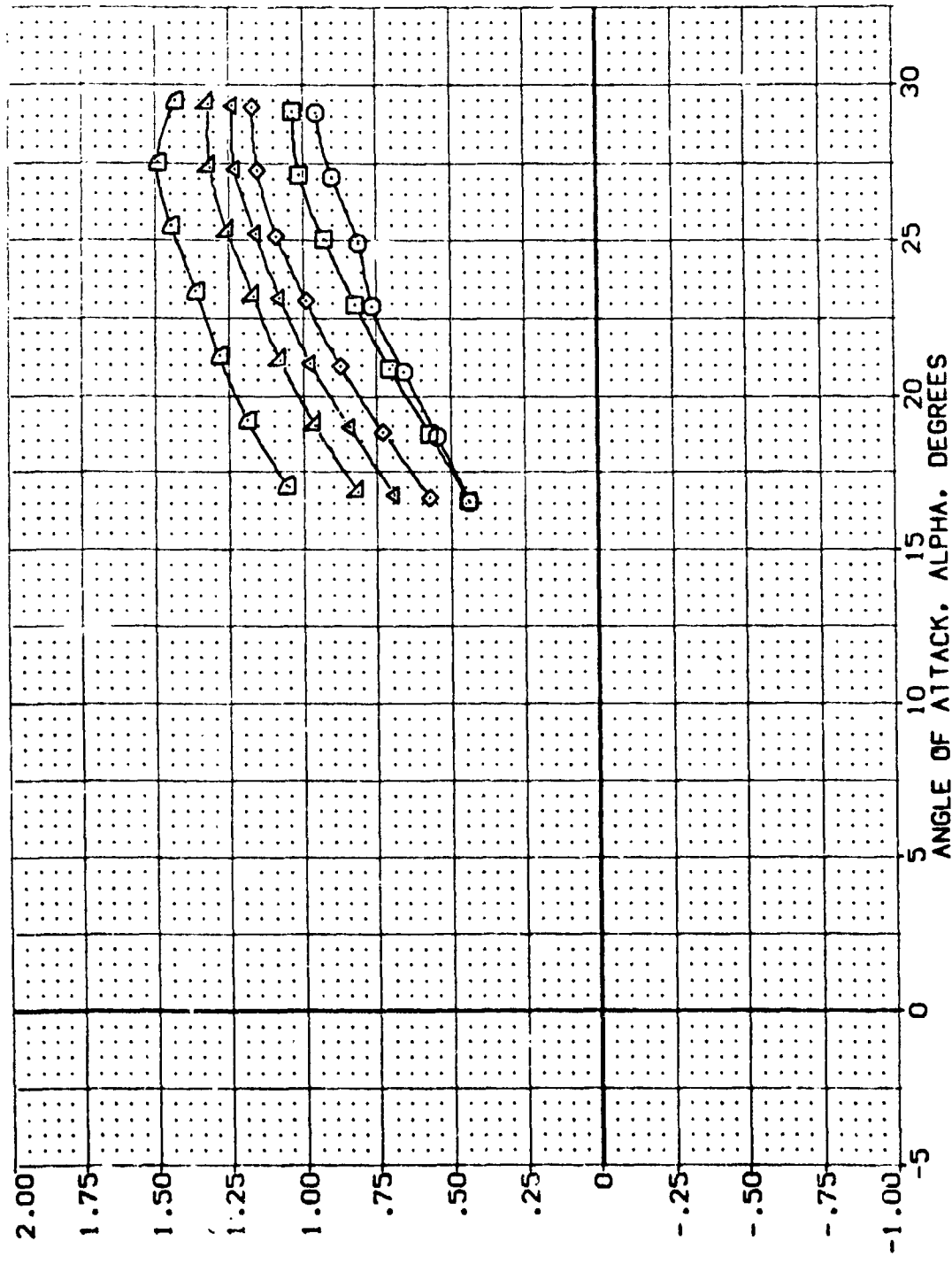


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

CAMACH = .20

5

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(B07051)	0A628 B26C9G15MTF8 V116E28V8K5X9	-40.000	.035	25.000	-12.000	SREF 4.4119 SO.FT.
(B07050)	0A628 B26C9G15MTF8 V116E28V8K5X9	-30.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(B07059)	0A628 B26C9G15MTF8 V116E28V8K5X9	-20.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(B07058)	0A628 B26C9G15MTF8 V116E28V8K5X9	-15.000	.035	25.000	-12.000	MTF 43.5974 INCHES
(B07056)	0A628 B26C9G15MTF8 V116E28V8K5X9	-10.000	.035	25.000	-12.000	ZTRP 15.0000 INCHES
(B07049)	0A628 B26C9G15MTF8 V116E28V8K5X9	-10.000	.035	25.000	-12.000	ZTRP 15.1875 INCHES
						SCALE .0405



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FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(M)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	H/BW	SPORR	BOFLAP	REFERENCE INFORMATION
(802051)	0A628 826C9G1 SMTF 8	-40.000	.035	25.000	-12.000	SAC: 4.4119 50.FT.
(802050)	0A628 826C9G1 SMTF 8	-30.000	.035	25.000	-12.000	LREF: 19.2299 INCHES
(802059)	0A628 826C9G1 SMTF 8	-20.000	.035	25.000	-12.000	BACF: 37.9359 INCHES
(802058)	0A628 826C9G1 SMTF 8	-15.000	.035	25.000	-12.000	XMRP: 43.5974 INCHES
(802056)	0A628 826C9G1 SMTF 8	-10.000	.035	25.000	-12.000	YMRP: .0000 INCHES
(802049)	0A628 826C9G1 SMTF 8	.000	.035	25.000	-12.000	ZMRP: 15.1875 INCHES
						SCALE: .0405 SCALE

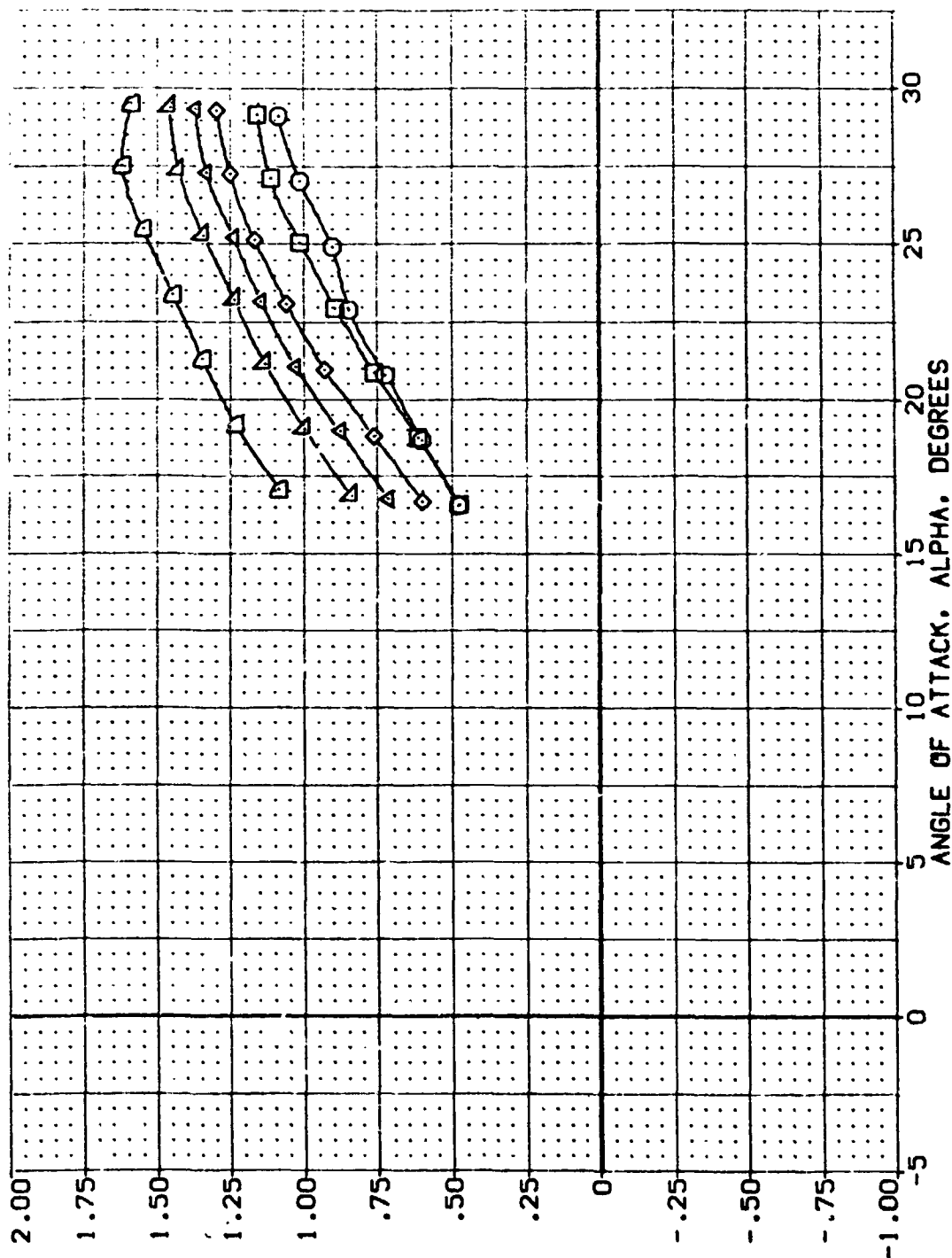


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02061)	0A628 B26C9G1 SMT78	-40.000	.035	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(B02060)	0A628 B26C9G1 SMT78	-30.000	.035	25.000	-12.000	LREF 19.2259 INCHES
(B02059)	0A628 B26C9G1 SMT78	-20.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(B02058)	0A628 B26C9G1 SMT78	-15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(B02056)	0A628 B26C9G1 SMT78	-10.000	.035	25.000	-12.000	YMRP .0000 INCHES
(B02049)	0A628 B26C9G1 SMT78	.000	.035	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0403

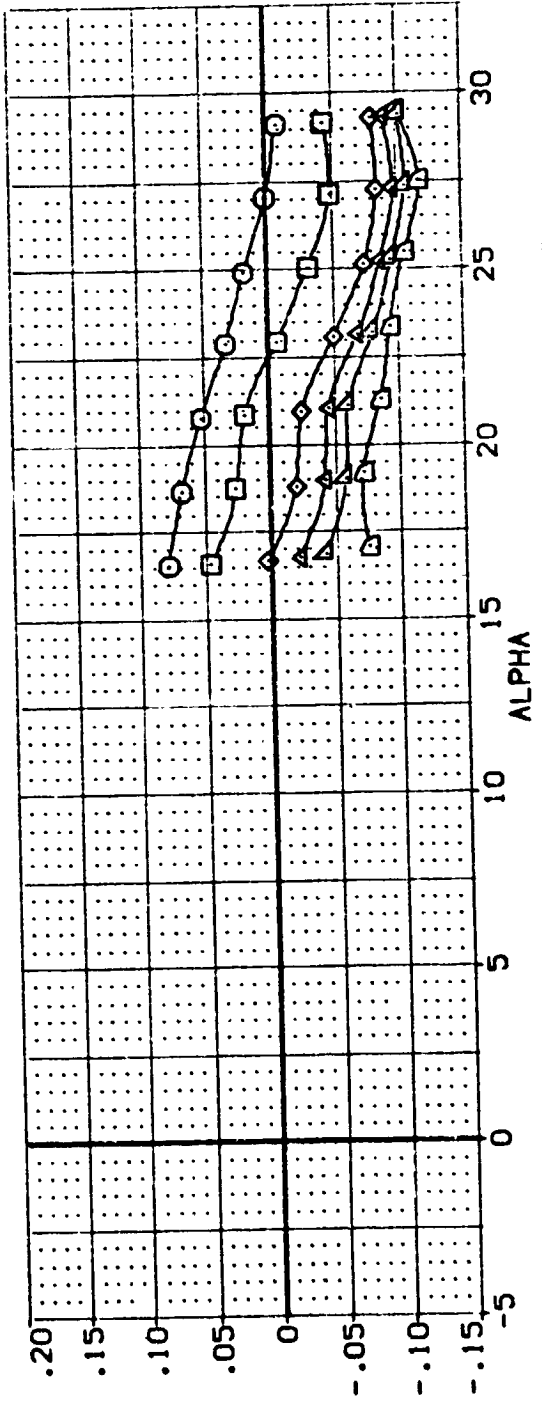
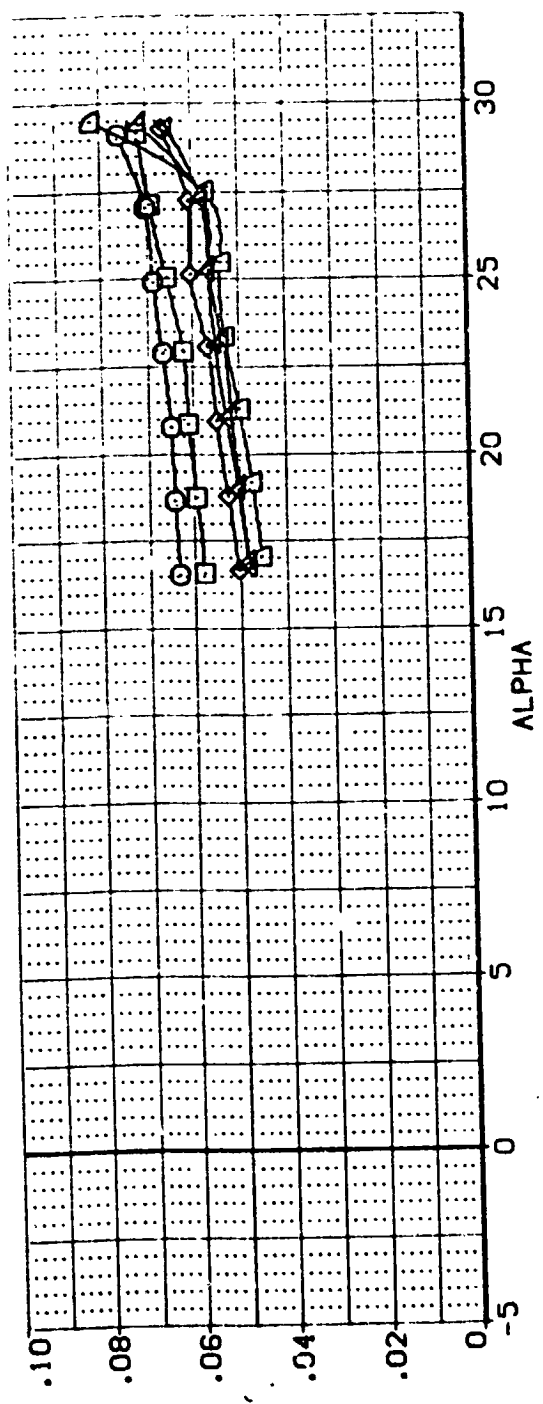


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOROK	BOFLAP	REFERENCE INFORMATION
(B07061)	QAE28 B76C9G1 SH7F8 V116E28V85X9	-40.000	.035	25.000	-12.000	SREF 4.4119 SQ.FT.
(B07060)	QAE28 B76C9G1 SH7F8 V116E28V85X9	-30.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(B07059)	QAE28 B76C9G1 SH7F8 V116E28V85X9	-20.000	.035	25.000	-12.000	BREF 27.9339 INCHES
(B07058)	QAE28 B76C9G1 SH7F8 V116E28V85X9	-15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(B07056)	QAE28 B76C9G1 SH7F8 V116E28V85X9	-10.000	.035	25.000	-12.000	ZMRP .0000 INCHES
(B07049)	QAE28 B76C9G1 SH7F8 V116E28V85X9	-10.000	.035	25.000	-12.000	SCALE 15.1875 INCHES
						SCALE .0405

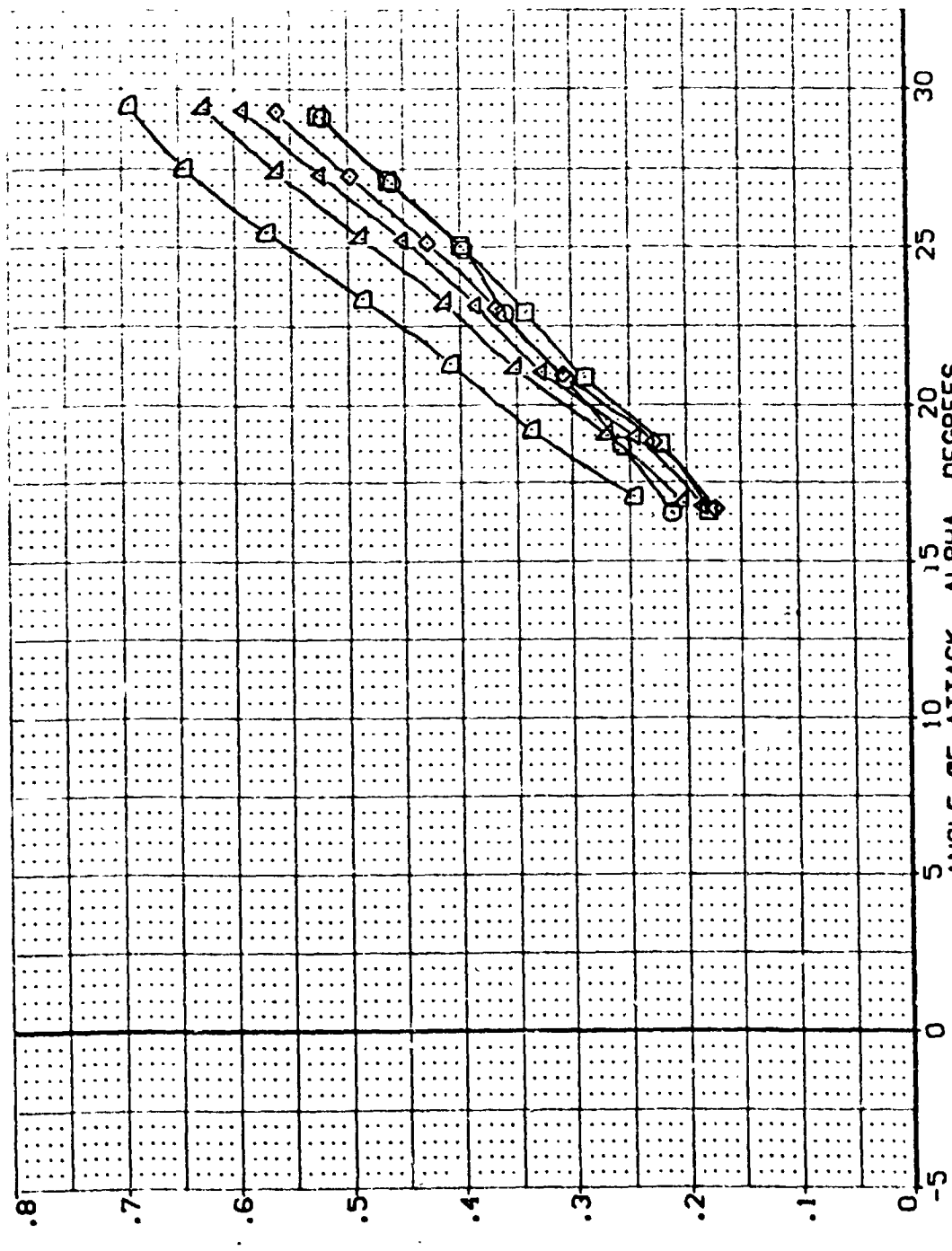


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035  
(A)MACH = .20

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BOFLAP	REFERENCE INFORMATION
(B02051)	0A628 B26C9G1S4778 V116E28V85X9	-40.000	.035	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02050)	0A628 B26C9G1S4778 V116E28V85X9	-30.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(B02059)	0A628 B26C9G1S4778 V116E28V85X9	-20.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(B02058)	0A628 B26C9G1S4778 V116E28V85X9	-15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(B02056)	0A628 B26C9G1S4778 V116E28V85X9	-10.000	.035	25.000	-12.000	ZMRP .0000 INCHES
(B02049)	0A628 B26C9G1S4778 V116E28V85X9	.000	.035	25.000	-12.000	SCALE 15.1875 INCHES

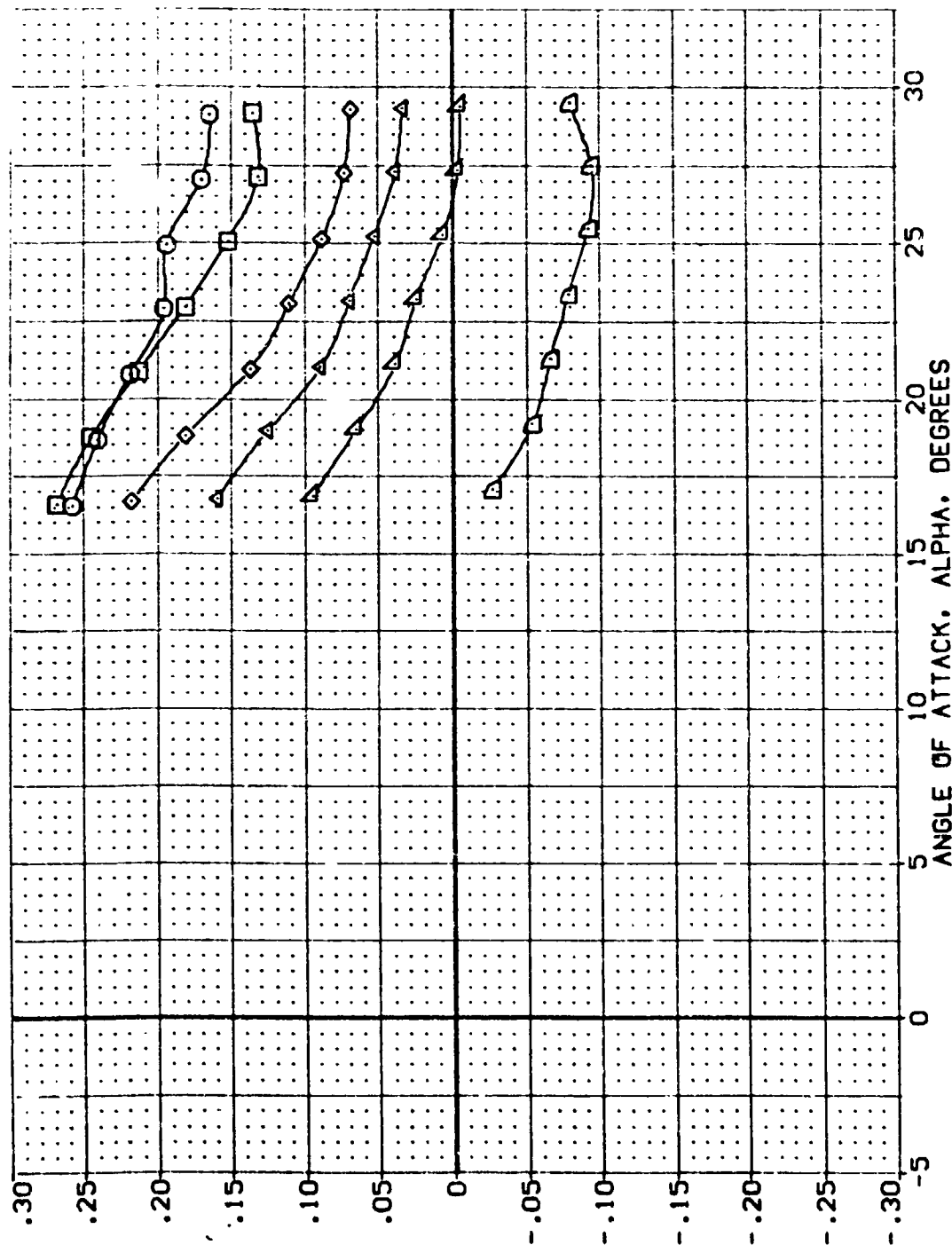
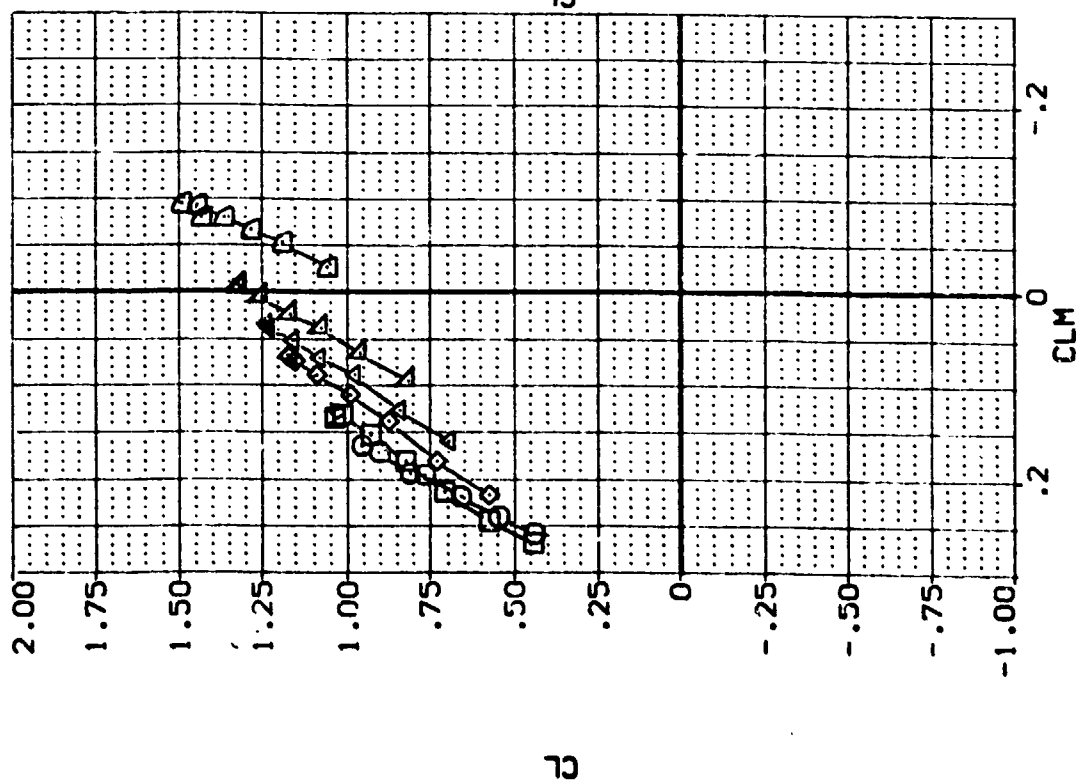


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(802061)	0A628	826C9G1547F8	V116E28V8R5X9
(802060)	0A628	826C9G1547F8	V116E28V8R5X9
(802059)	0A628	826C9G1547F8	V116E28V8R5X9
(802058)	0A628	826C9G1547F8	V116E28V8R5X9
(802056)	0A628	826C9G1547F8	V116E28V8R5X9
(802049)	0A628	826C9G1547F8	V116E28V8R5X9



ELEVON H/BW SPOBRK BDFLAP REFERENCE INFORMATION

-40.000	.035	25.000	-12.000	SREF	4.4119	50.000
-30.000	.035	25.000	-12.000	LREF	19.2299	INCHES
-20.000	.035	25.000	-12.000	BREF	37.9359	INCHES
-15.000	.035	25.000	-12.000	YMRP	43.5974	INCHES
-10.000	.035	25.000	-12.000	YMRP	15.0000	INCHES
.000	.035	25.000	-12.000	YMRP	15.1875	INCHES
				SCALE	.0405	SCALE

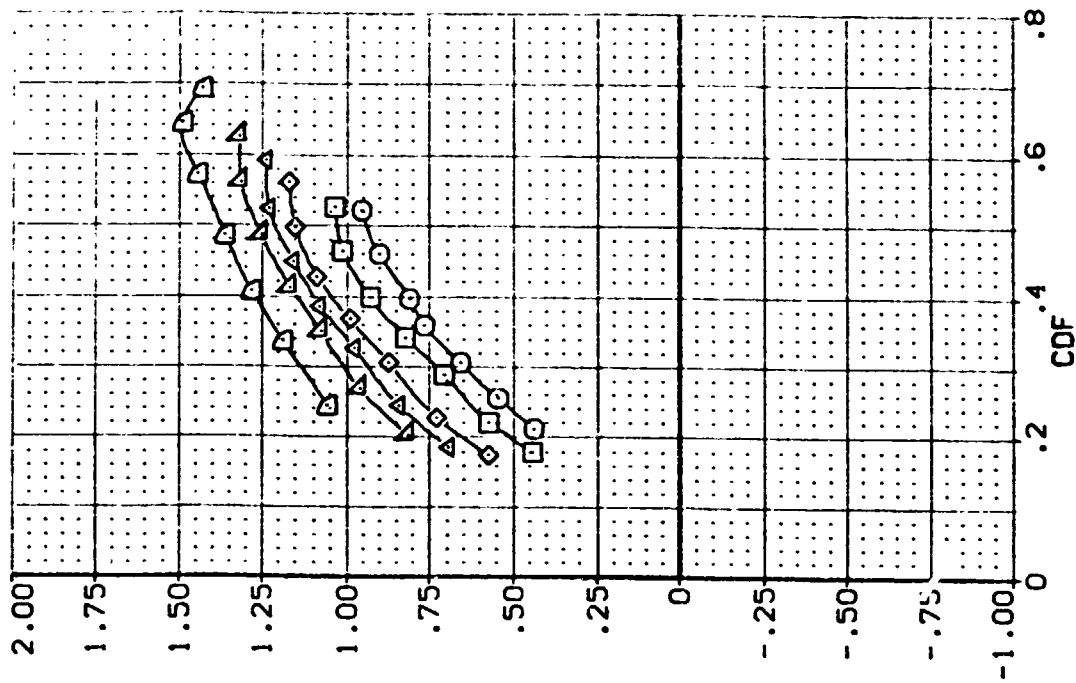


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02061)	0A62B B26C9G1SMT78 V116E28V8RSX9	-40.000	.035	25.000	-12.000	SREF 1.4119 50.000
(B02060)	0A62B B26C9G1SMT78 V116E28V8RSX9	-30.000	.035	25.000	-12.000	LREF 19.2299 100.000
(B02059)	0A62B B26C9G1SMT78 V116E28V8RSX9	-20.000	.035	25.000	-12.000	BREF 37.9359 100.000
(B02058)	0A62B B26C9G1SMT78 V116E28V8RSX9	-15.000	.035	25.000	-12.000	XMRP 43.5574 100.000
(B02056)	0A62B B26C9G1SMT78 V116E28V8RSX9	-10.000	.035	25.000	-12.000	YMRP 15.1875 100.000
(B02049)	0A62B B26C9G1SMT78 V116E28V8RSX9	.000	.035	25.000	-12.000	ZMRP 15.1875 100.000
						SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

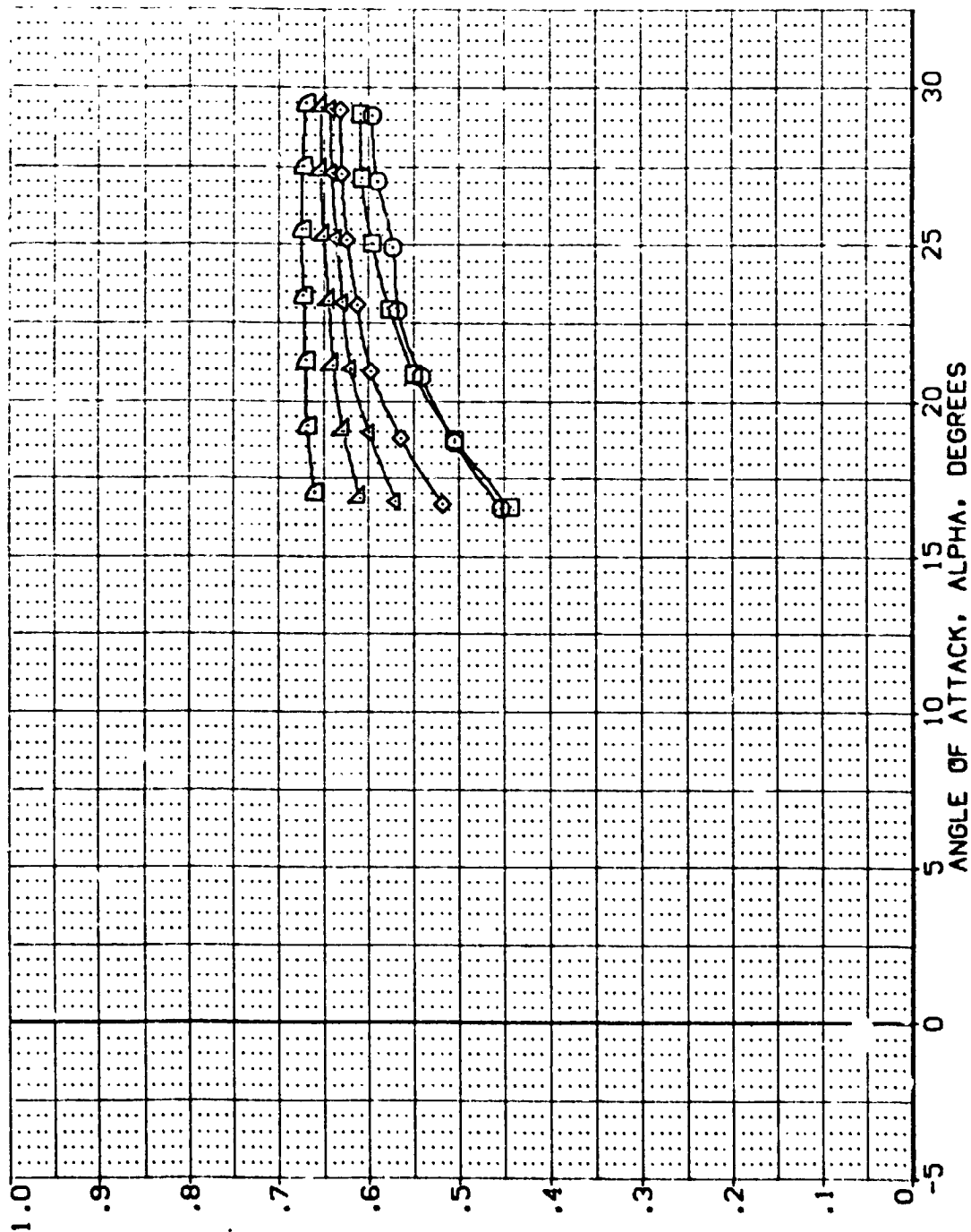


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02051)	0A628 B26C9G1SMTF8	-40.000	.035	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02050)	0A628 B26C9G1SMTF8	-30.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(B02059)	0A628 B26C9G1SMTF8	-20.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(B02058)	0A628 B26C9G1SMTF8	-15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
(B02056)	0A628 B26C9G1SMTF8	-10.000	.035	25.000	-12.000	YMRP .0000 INCHES
(B02049)	0A628 B26C9G1SMTF8	.000	.035	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

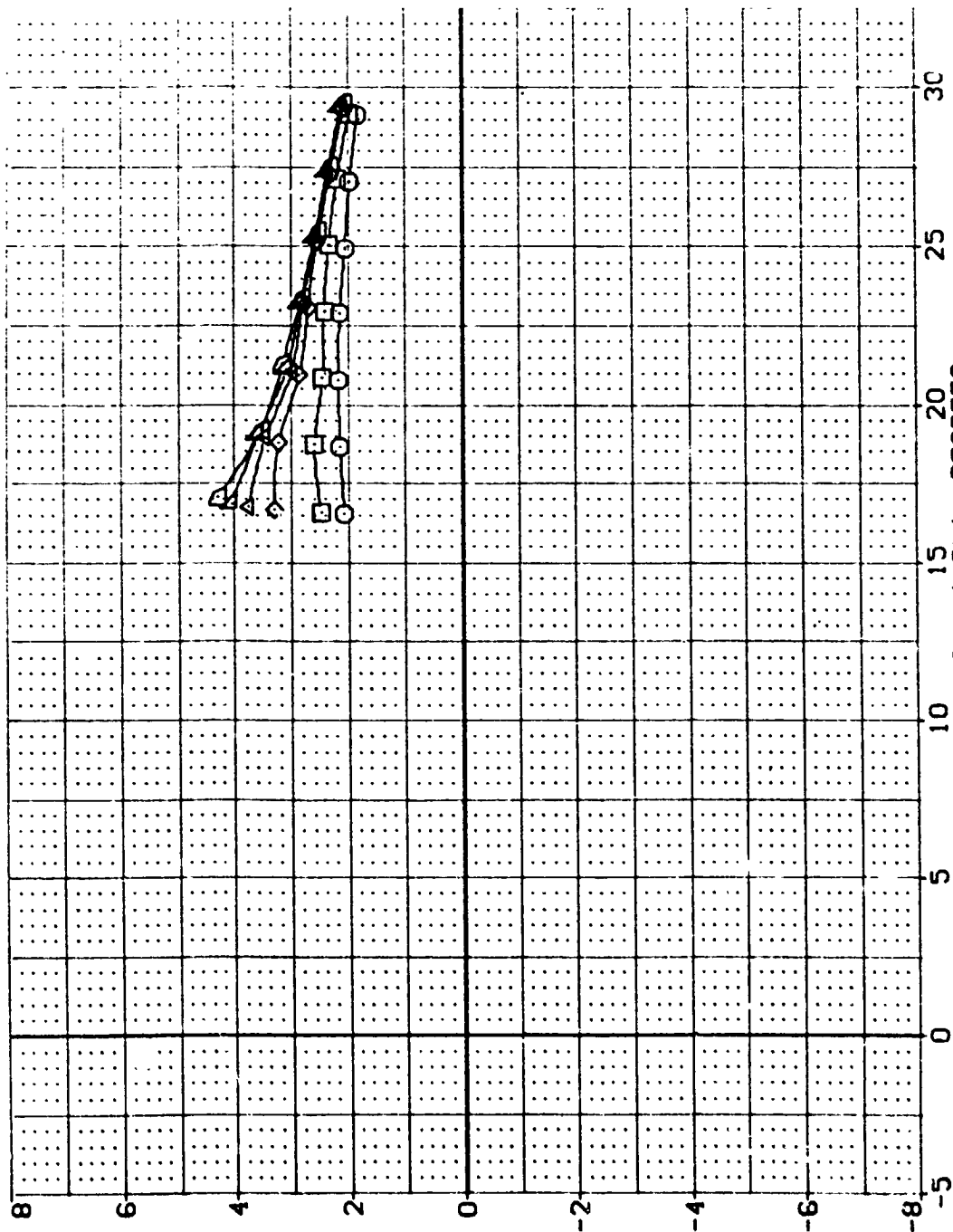


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20



0A628 B26C9G15M7F8 W116E28V8R5X9 (10Z061)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	15.000	BOLAP	.200 BETA	DELTON	SO.FT.
		RUDER	-12.000 AILRON	.000 DATASET	INCHES
		H/BW	.000 SPDRK	10Z061	19.2299
			.000	10Z059	37.9359
			.035	10Z056	43.5974
				10Z055	INCHES
				10Z050	INCHES
				10Z049	INCHES
				10Z051	SCALE
				10.000	15.1875
					.0405

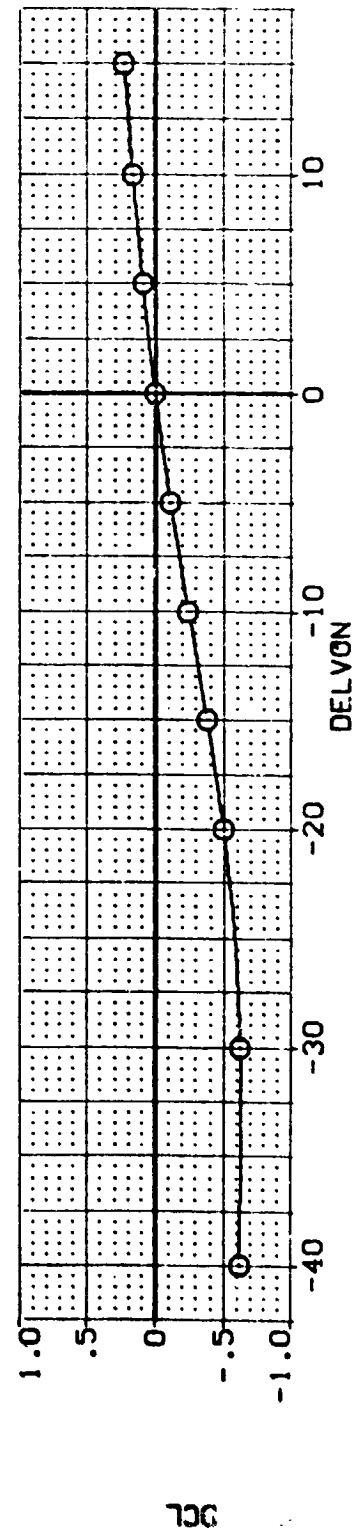
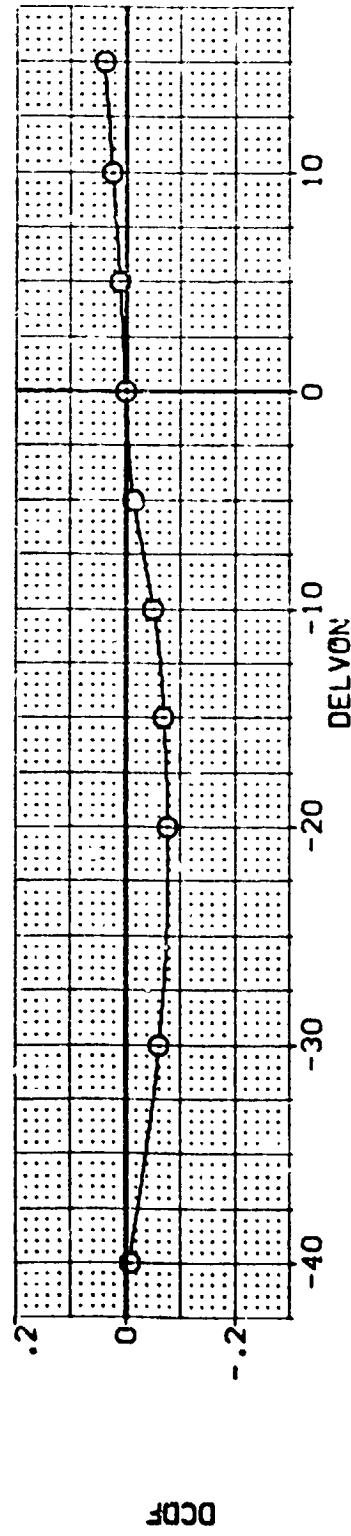
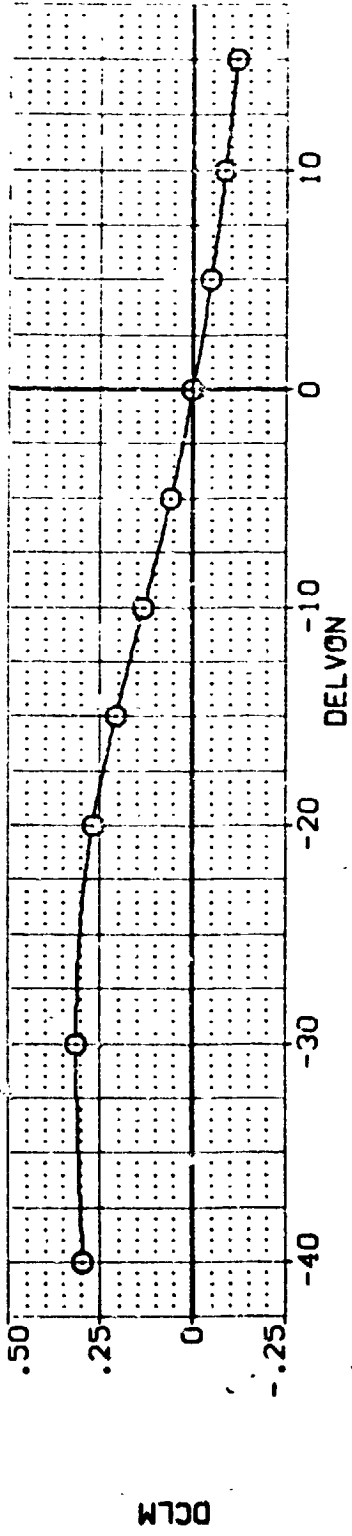
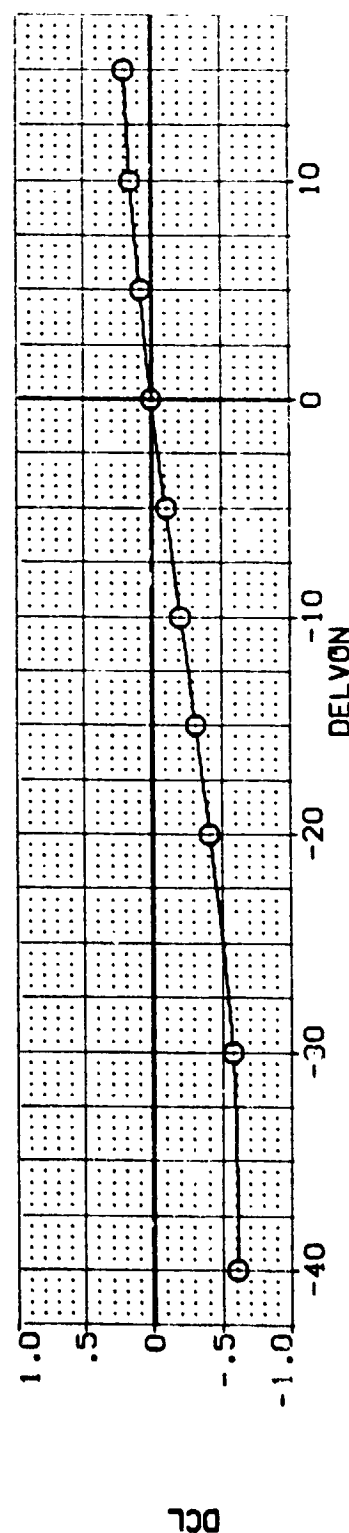
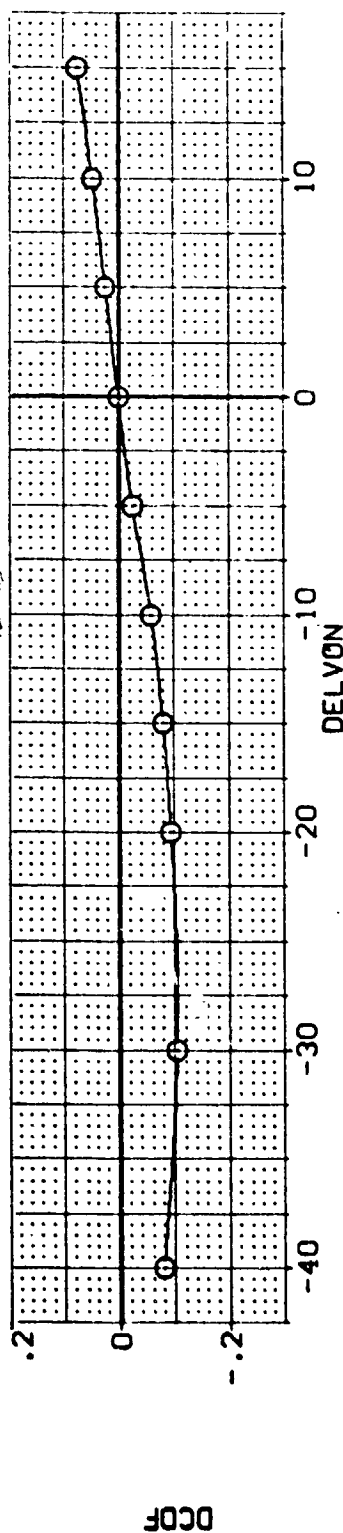
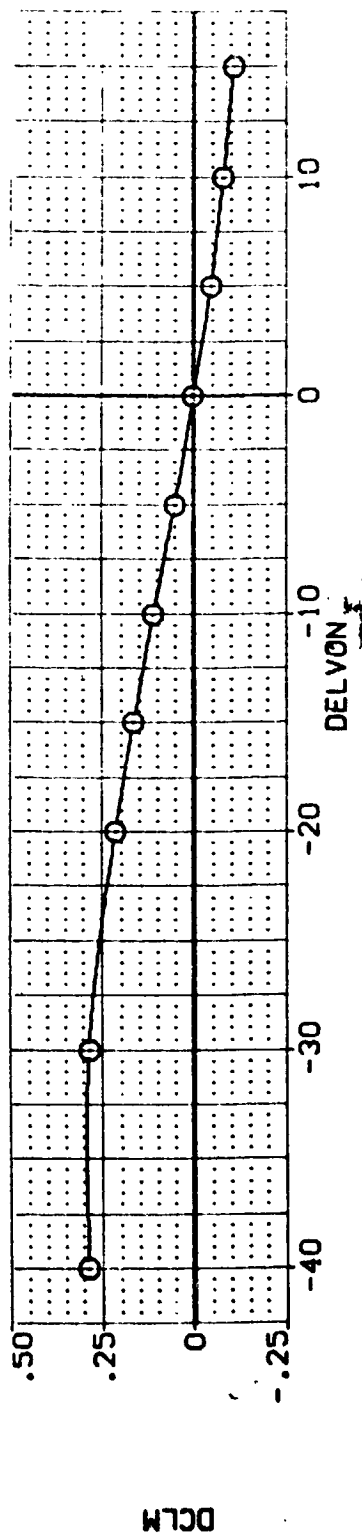


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035



SYMBOL	ALPHA	MACH	PARAME- TRIC VALUES
0	20.000	BFLAP	BETA
		RUDER	-12.000
		W/BV	AILRON
			SPOBRK
			.035







0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ061)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	25.000	MACH .200 BOFLAP -12.000 RUDDER .000 H/BW .035	BETA ALLRON SPDRK	4.4119 19.2299 37.9359 43.5974 0.000 15.1875 SCALE
			DELTON	SO.FT. INCHES INCHES INCHES INCHES INCHES SCALE
			DATASET	SREF
			1DZ060	LREF
			1DZ058	BREF
			1DZ055	YMRP
			1DZ050	ZMRP
			1DZ051	SCALE

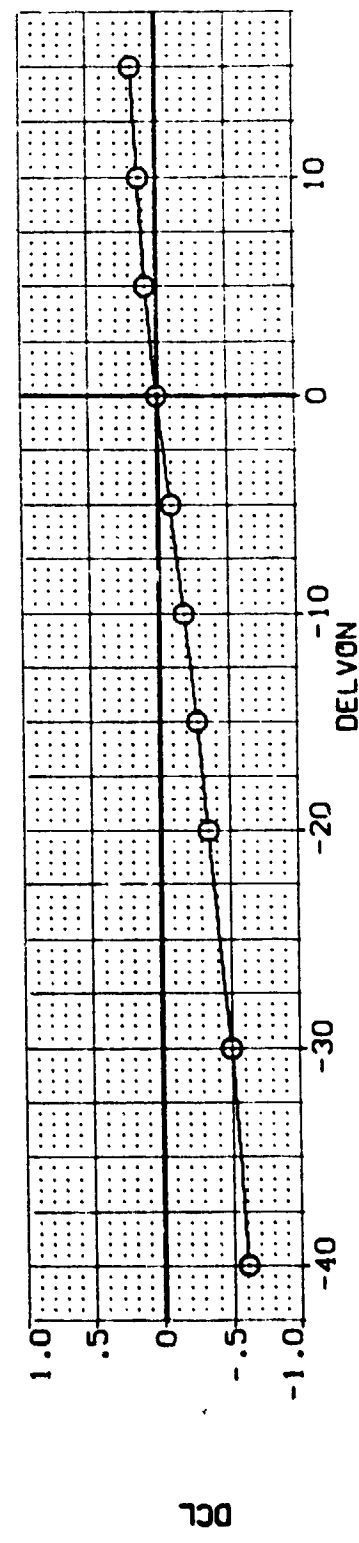
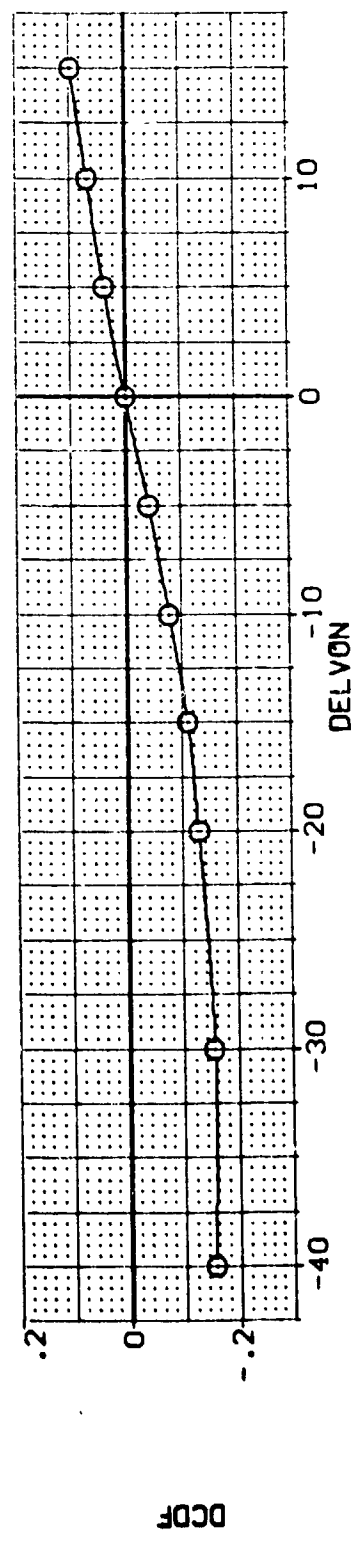
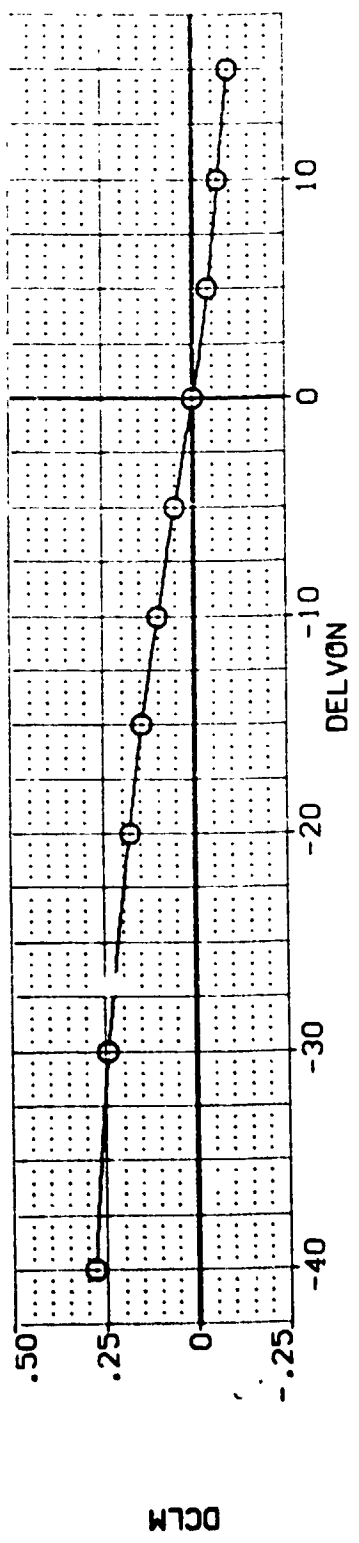


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

QA62B B26C9G15M7F8 W116E28V8R5X9 (1DZ061)

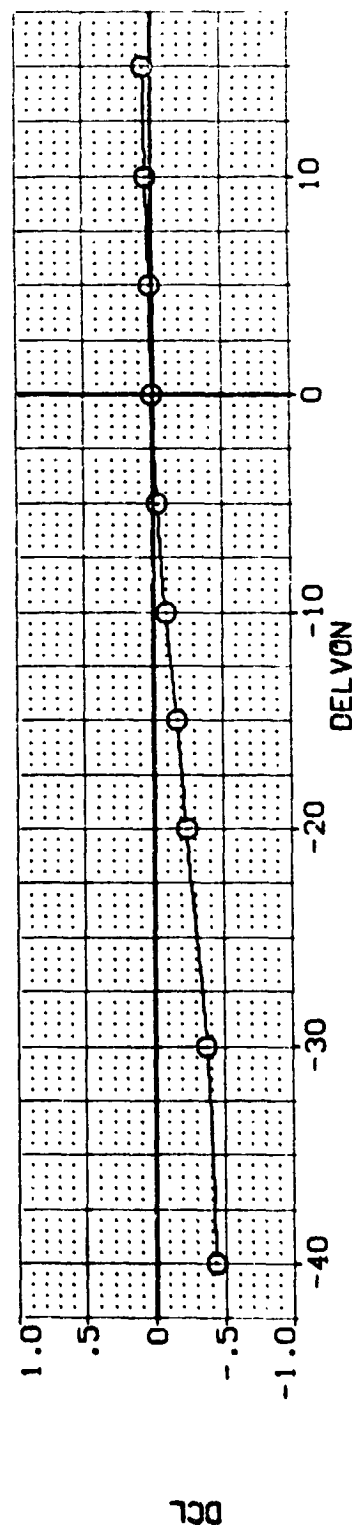
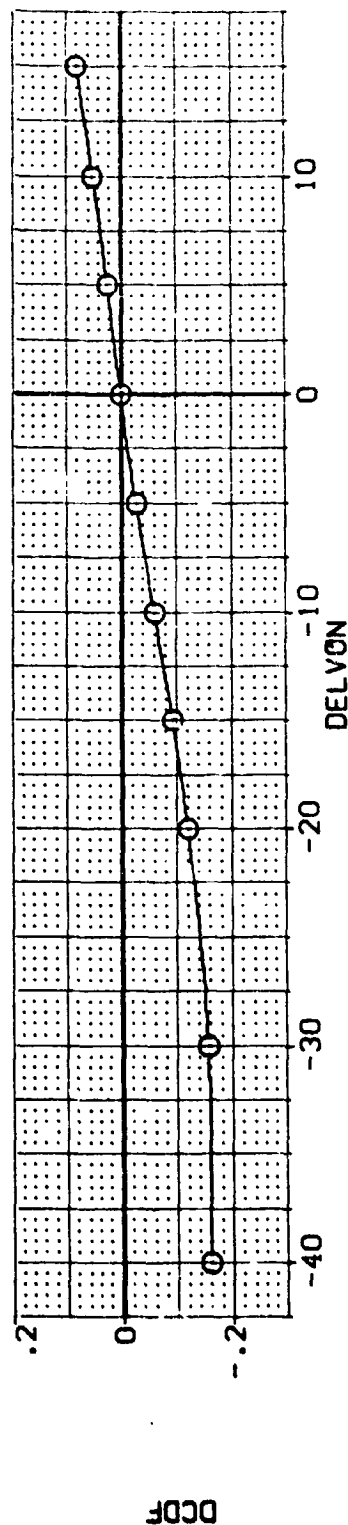
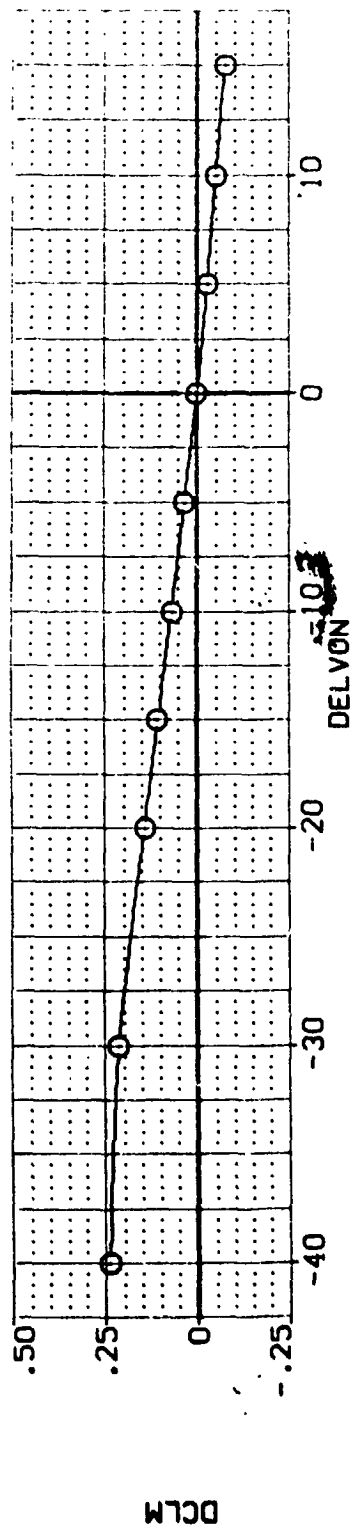
[illegible]

FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035



0A62B B26C9G15M7F8 W116E28V8R5X9

(1DZ061)

SYMBOL  
O

ALPHA 15.000  
MACH .200  
BDFLAP -12.000  
RUDDER .000  
H/BW .035

PARAMETRIC VALUES  
BETA  
AILRON  
SPOBRK  
IDZ061  
IDZ059  
IDZ056  
IDZ049  
IDZ051

DATA SOURCE  
DELTON  
-40.000  
-20.000  
-10.000  
10.000

REFERENCE INFORMATION  
SREF 4.4119  
LREF 19.2299  
BREF 37.9359  
XMRP 43.5974  
YMRP 15.0000  
ZMRP 15.1875  
SCALE .0405

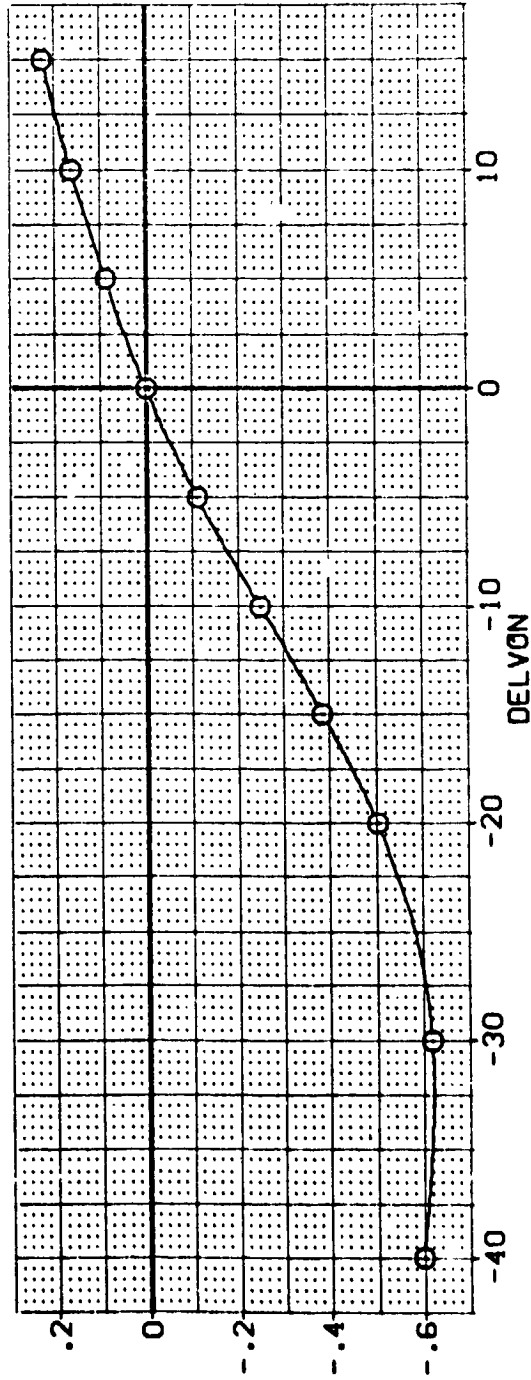
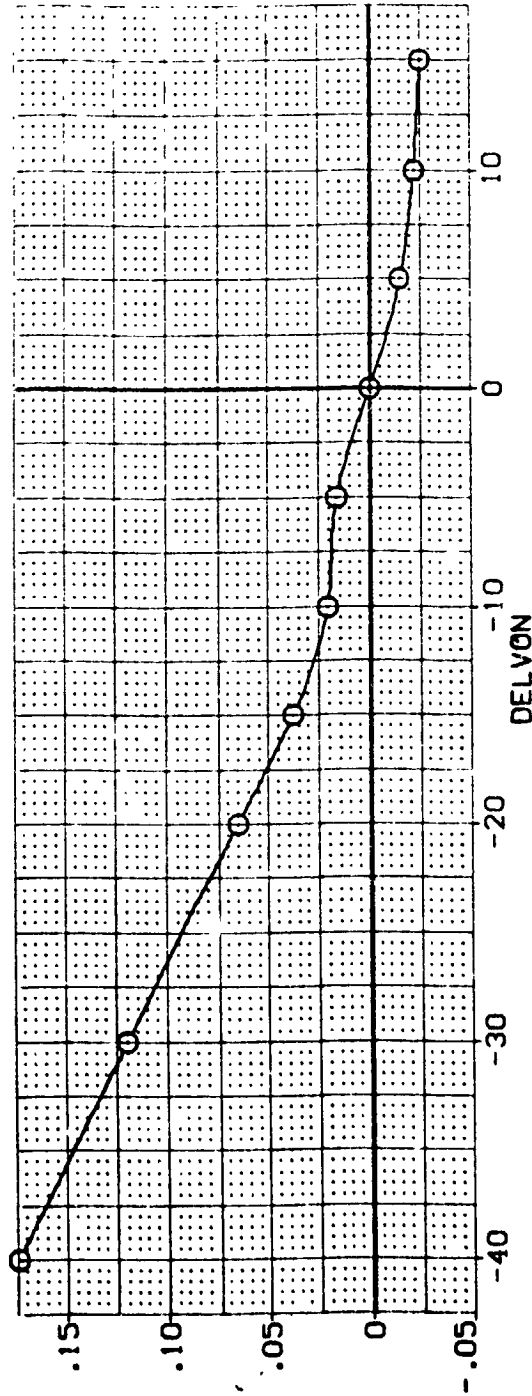


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ061)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
O	20.000	BDFLAP	.200	.000	IDZ061	-40.000	4.4119	SC.FT.
		RUDER	-12.000	.000	IDZ058	-20.000	19.2293	INCHES
		H/BW	.035	25.000	IDZ056	-10.000	37.9359	INCHES
				IDZ049	IDZ052	15.000	43.5974	INCHES
				IDZ051		10.000	.0000	INCHES
						10.000	15.1875	INCHES
							.0405	SCALE

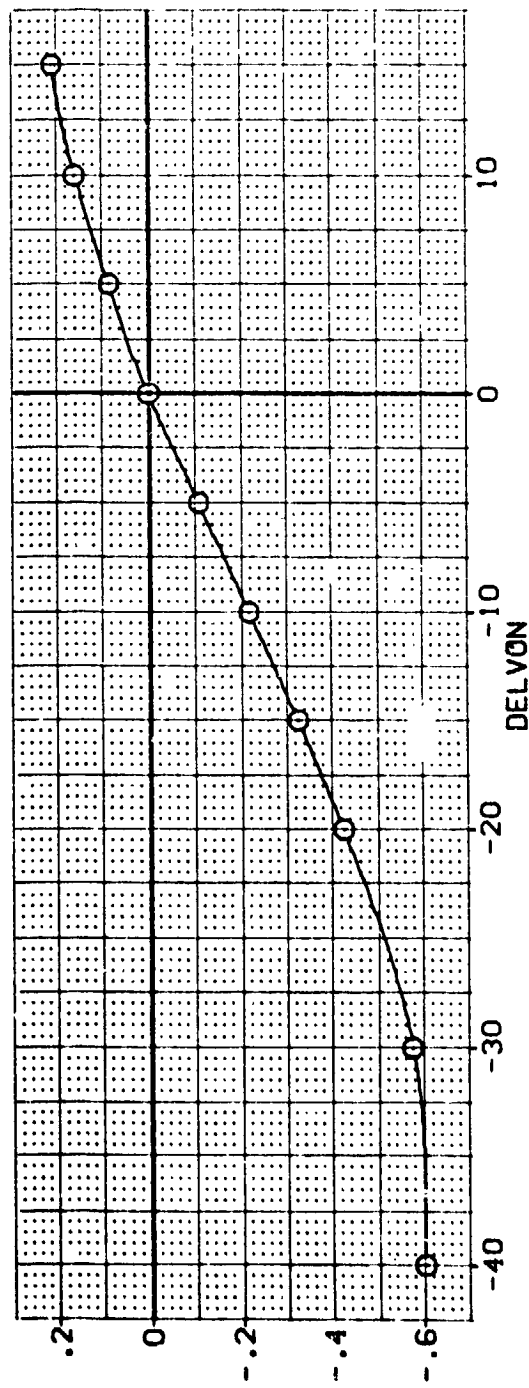
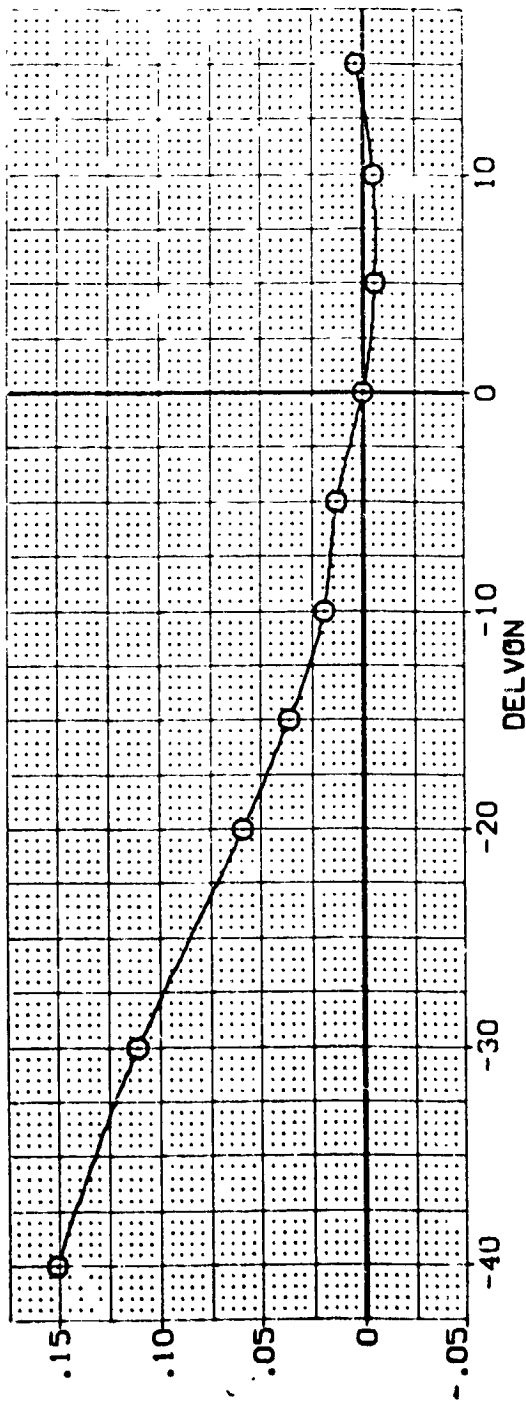


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035



(190701)

REFERENCE INFORMATION

DATASET	DELVON	SREF
10Z060	-30.000	LREF
10Z058	-15.000	BREF
10Z055	-5.000	XMRP
10Z050	5.000	YMRP
10Z052	15.000	SCALE

DATA SOURCE	DELTVN
-40.000	
-20.000	
-10.000	
.000	
10.000	

PARAMETRIC VALUES	
BETA	.200
AILRON	-12.000
SPOBRK	.000
	.035

ALPHA	MACH
25.000	BOFLAP
	RUDDER
	HUBV

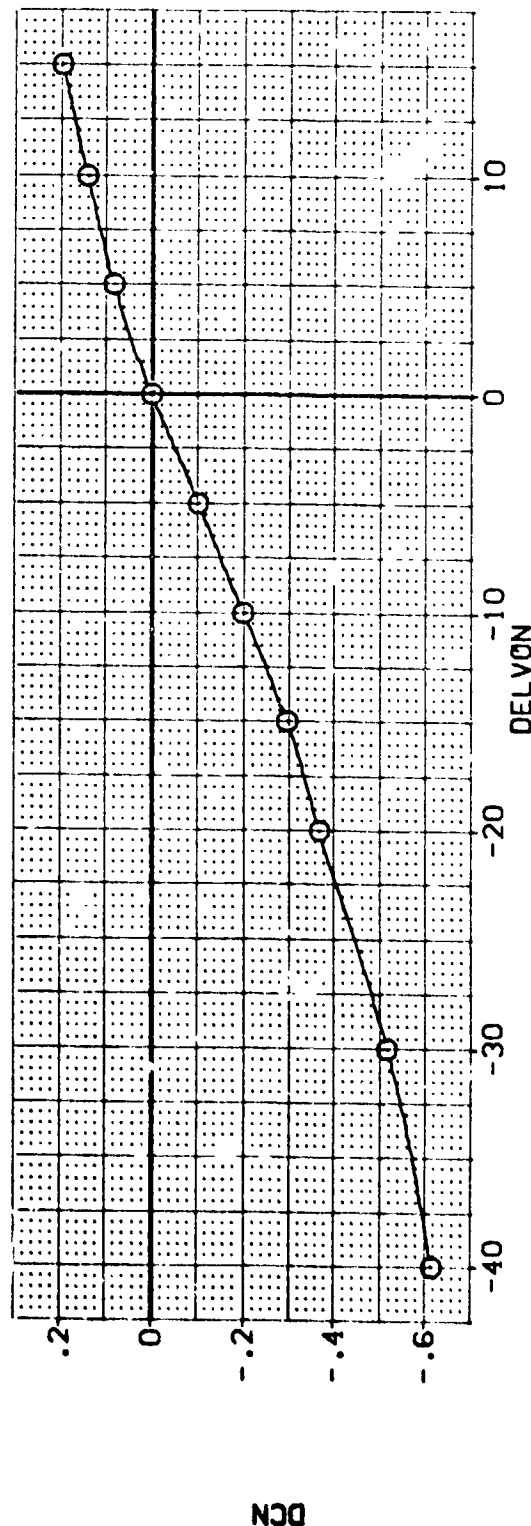
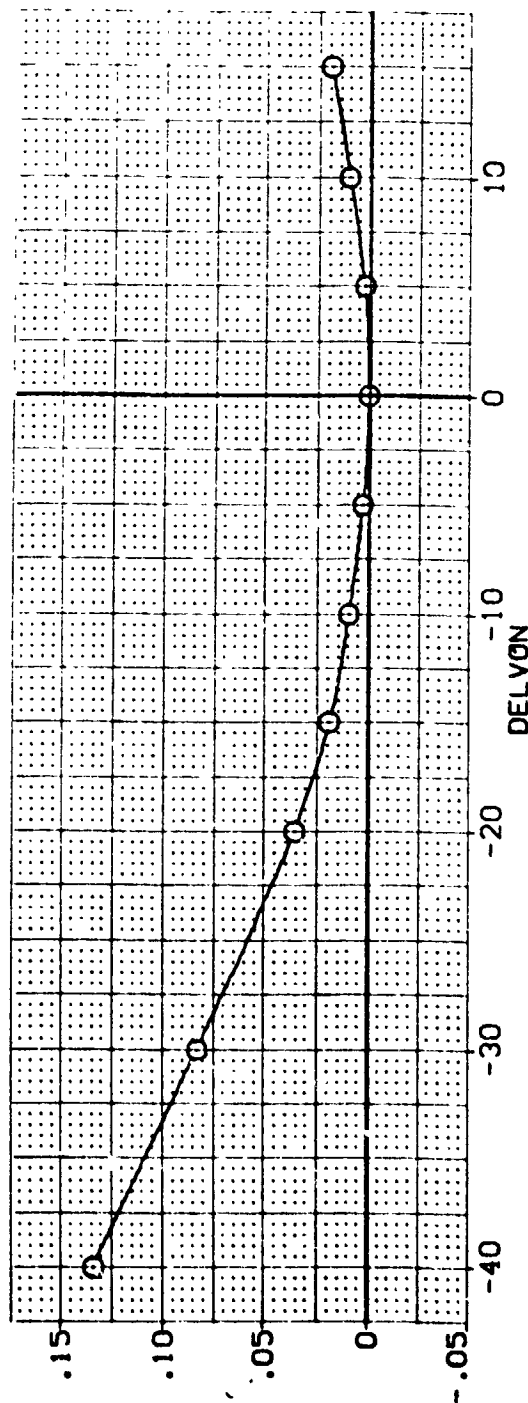


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

(1DZ061)

0A62B B26C9G15M7F8 W116E28V8R5X3

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
O	30.000	80FLAF	.200	BETA	.000	1DZ061	40.000	50. FT.
		RUDER	-12.000	ALLRON	.000	1DZ059	-20.000	INCHES
		H/BW	.035	SPOBRK	25.000	1DZ056	-10.000	INCHES
				1DZ049	10.000	1DZ050	5.000	INCHES
				1DZ051	10.000	1DZ052	15.000	INCHES
							15.1875	INCHES
							.0405	SCALE

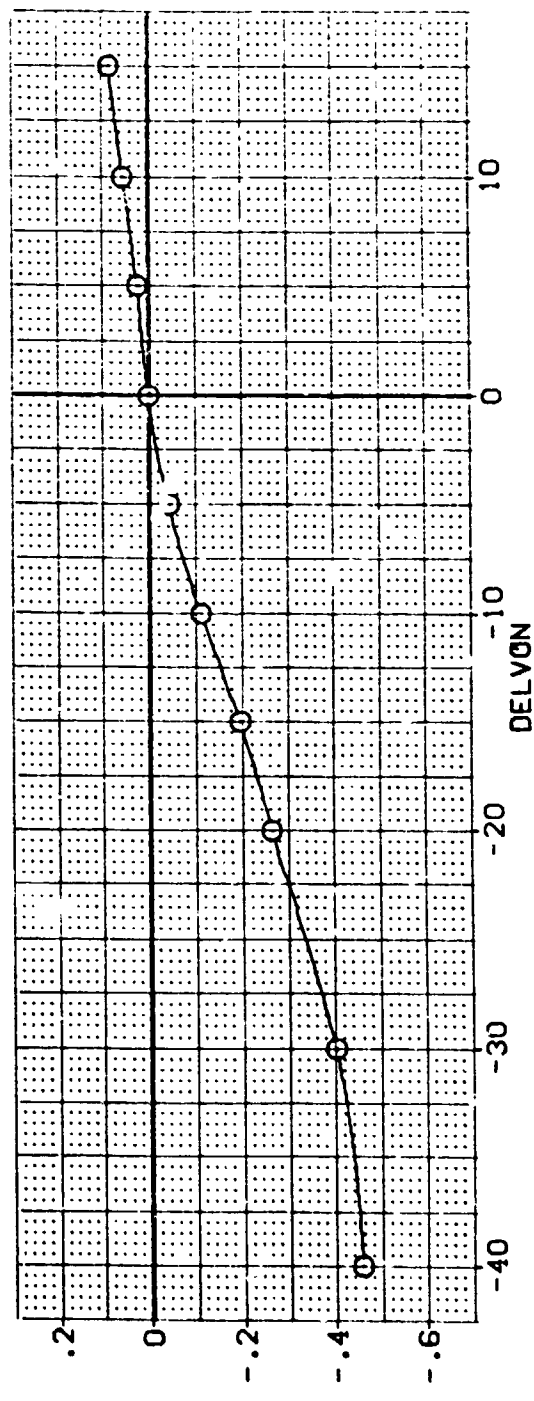
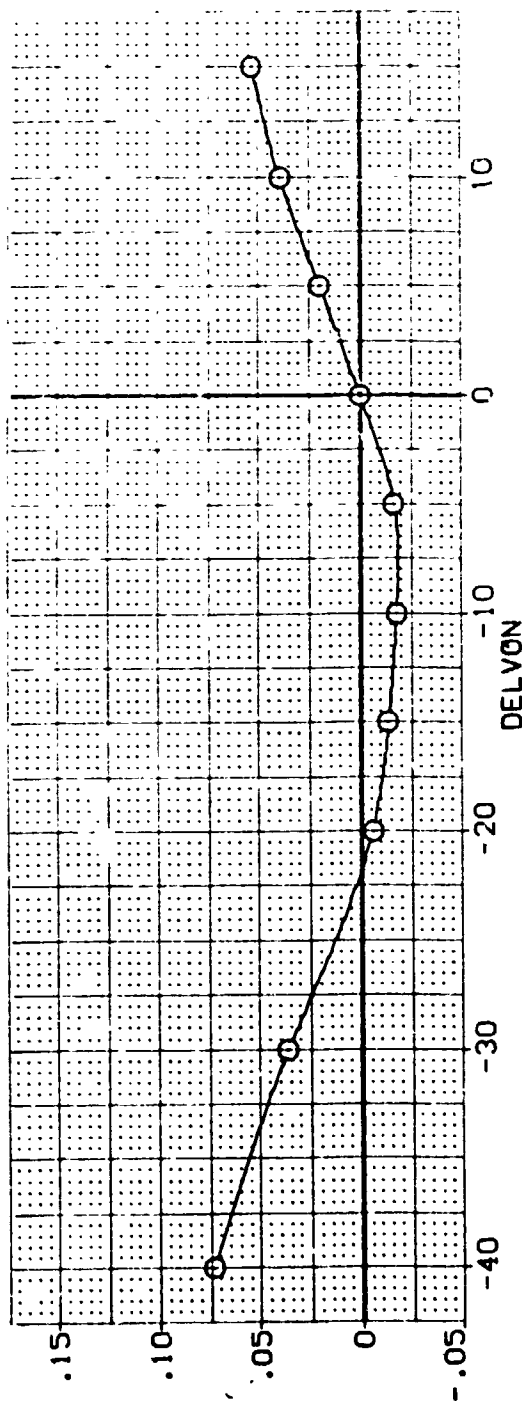


FIG 9 ELEVON EFFECTIVENESS IN PRESENCE OF GROUND H/BW = 0.035

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02057)	0A628 B26C9G1547F8 V116E26V8R5X9	-10.000	.035	25.000	-12.000	SREF 4.4119 50. FT.
(B02046)	0A628 B26C9G1547F8 V116E26V8R5X9	.000	.035	25.000	-12.000	LREF 19.2789 INCHES
(B02054)	0A628 B26C9G1547F8 V116E26V8R5X9	5.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(B02053)	0A628 B26C9G1547F8 V116E26V8R5X9	15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

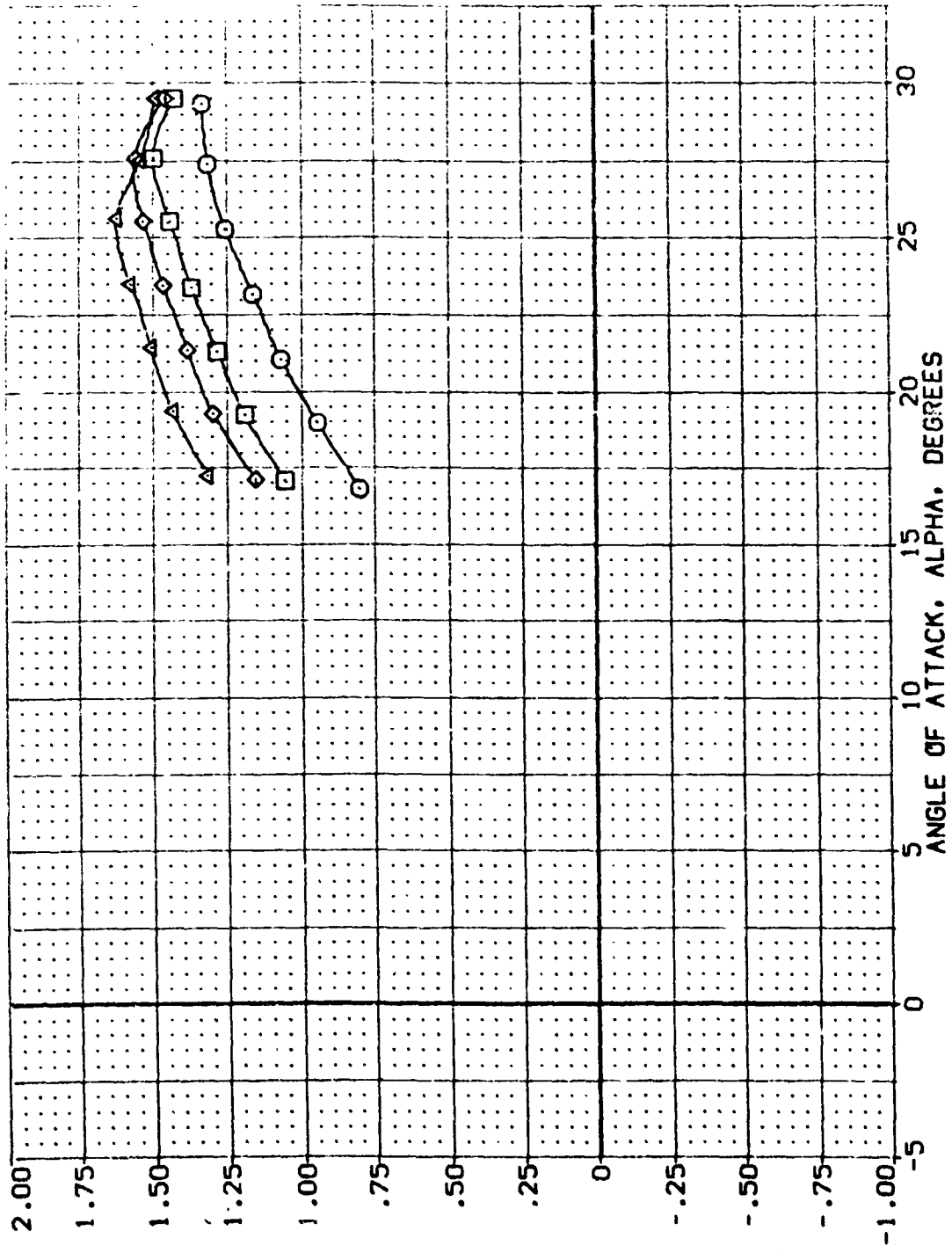


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(80Z057)	0A628 B26C9G SHTF 8 V116E26V8R5X9
(80Z046)	0A628 B26C9G SHTF 8 V116E26V8R5X9
(80Z054)	0A628 B26C9G SHTF 8 V116E26V8R5X9
(80Z053)	0A628 B26C9G SHTF 8 V116E26V8R5X9

ELEVON	H/BW	SPDRK	BOFLAP
-10.000	.035	25.000	-12.000
.000	.035	25.000	-12.000
5.000	.035	25.000	-12.000
15.000	.035	25.000	-12.000

REFERENCE INFORMATION	SO. FT.
SREF	4.4119
LREF	19.2299
BREF	37.9359
XPRP	43.5974
YPRP	15.0000
ZPRP	15.1873
SCALE	.0405

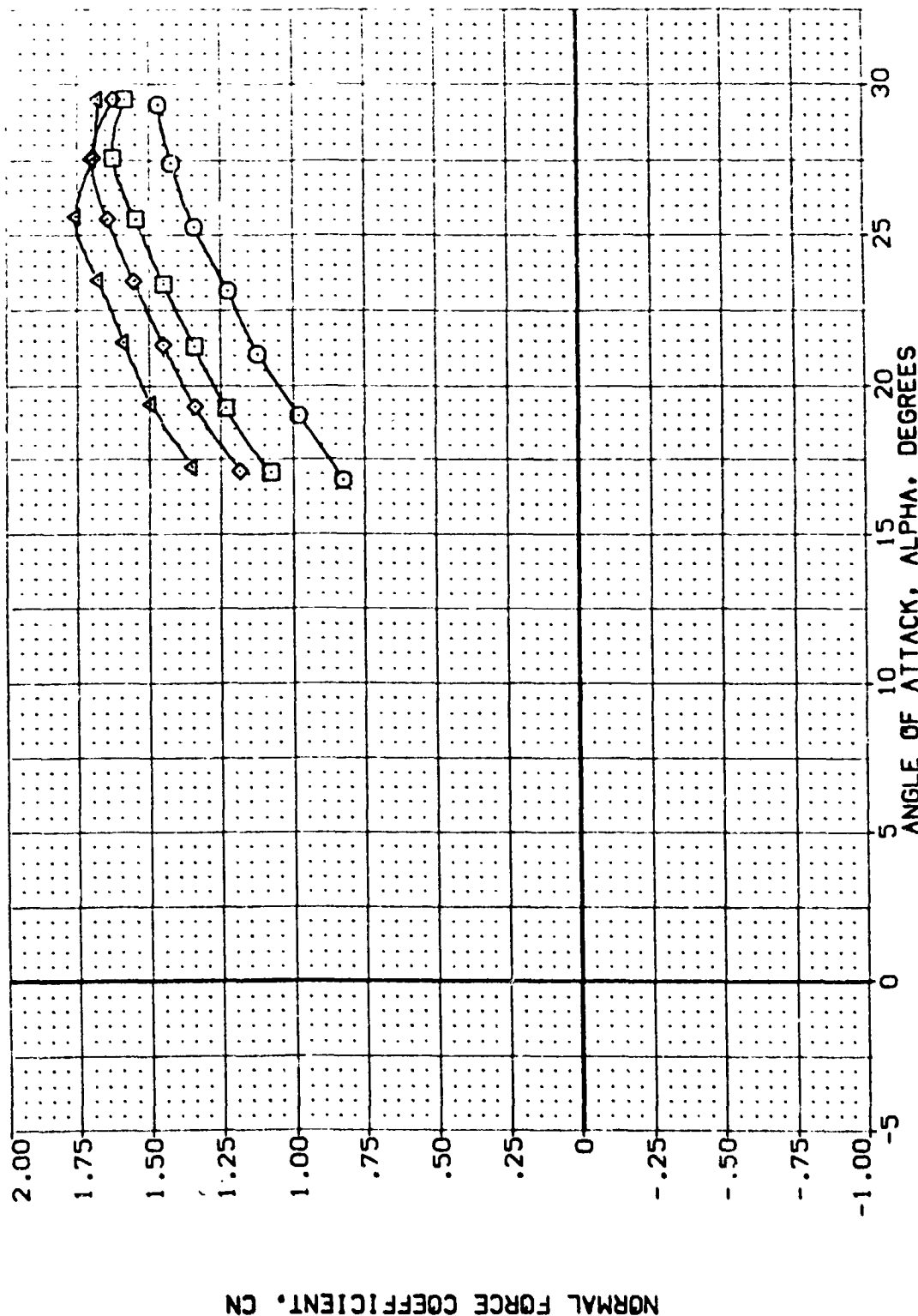


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02057)	0A628 B26C9G1547F8 V116E26V8R5X9	-10.000	.035	25.000	-12.000	SREF 4.4119 50. FT.
(B02046)	0A628 B26C9G1547F8 V116E26V8R5X9	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(B02054)	0A628 B26C9G1547F8 V116E26V8R5X9	5.000	.035	25.000	-12.000	BREF 37.9353 INCHES
(B02053)	0A628 B26C9G1547F8 V116E26V8R5X9	15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

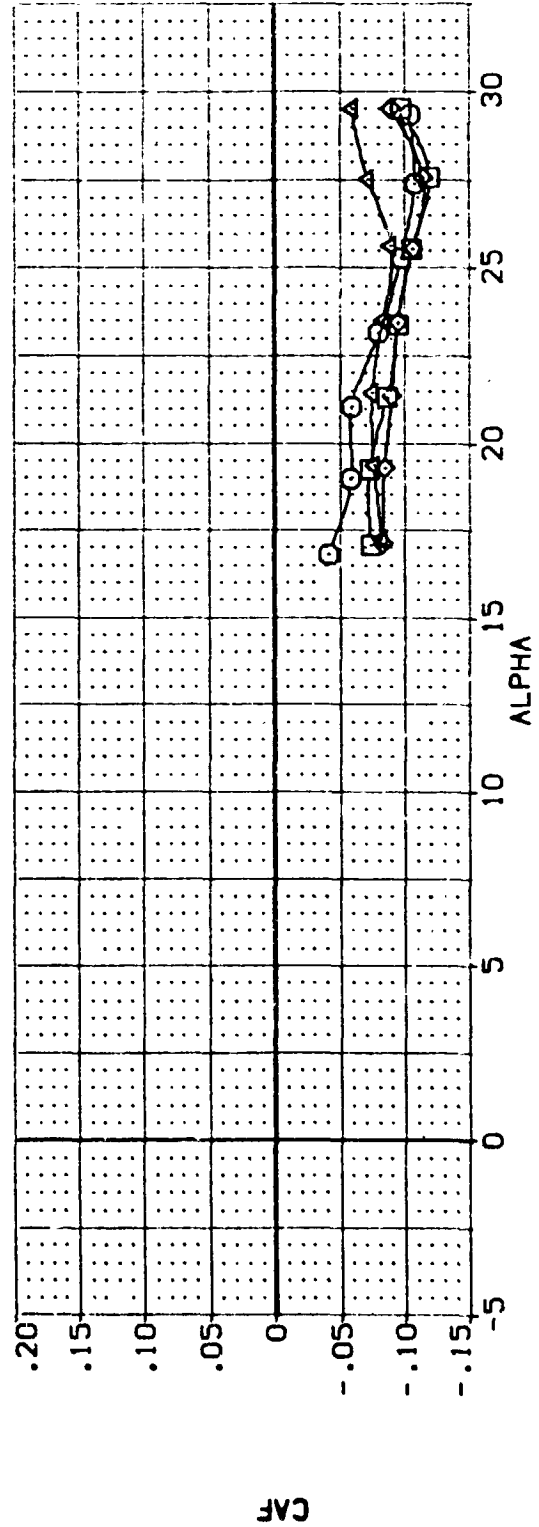
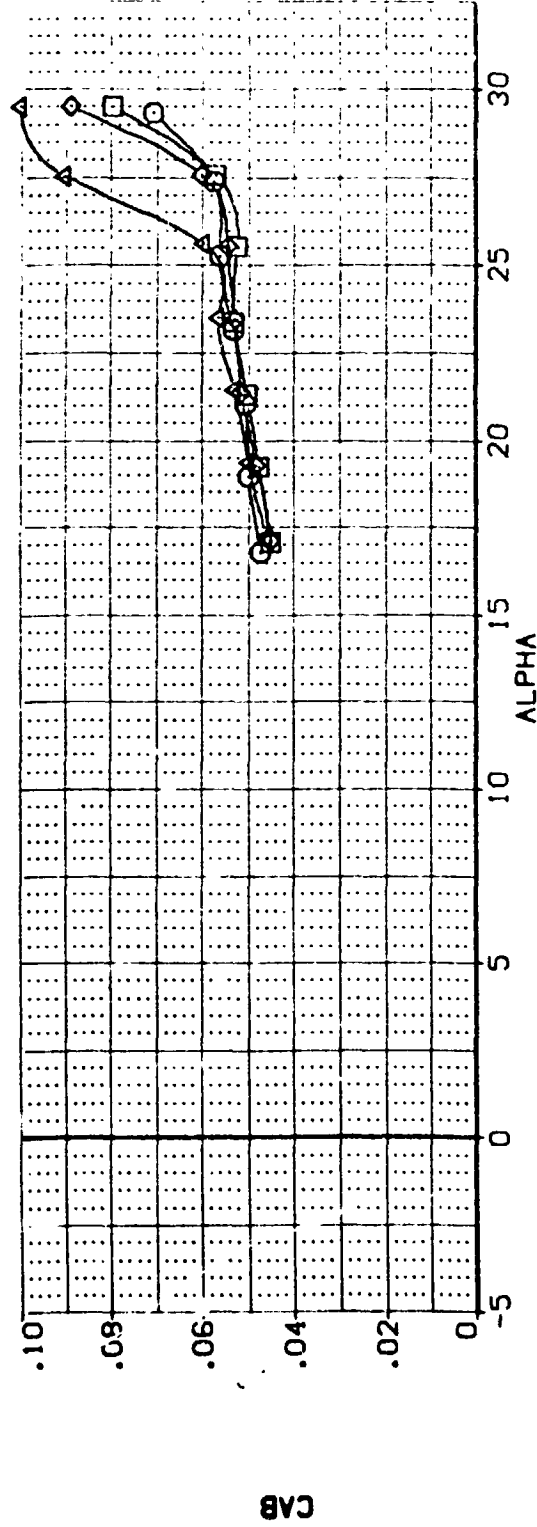


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(BD057)	QAS28 B26C9G1SMTF8 V116E26V8RSX9	-10.000	.035	25.000	-12.000	SREF 4.4119 SO.FT.
(BD046)	QAS28 B26C9G1SMTF8 V116E26V8RSX9	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(BD054)	QAS28 B26C9G1SMTF8 V116E26V8RSX9	5.000	.035	25.000	-12.000	BREF 37.9359 INCHES
(BD053)	QAS28 B26C9G1SMTF8 V116E26V8RSX9	15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
						YMRP 15.0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

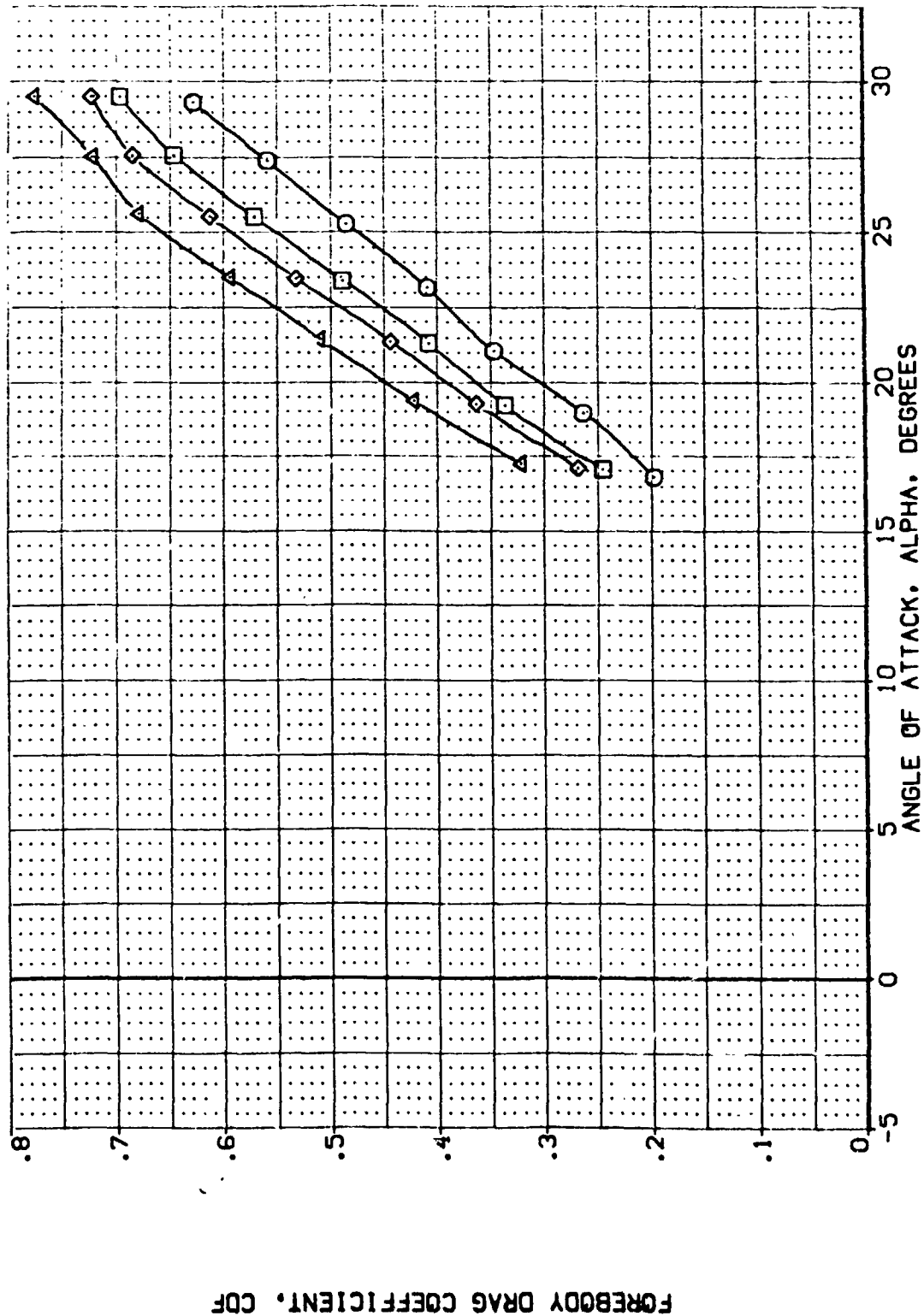


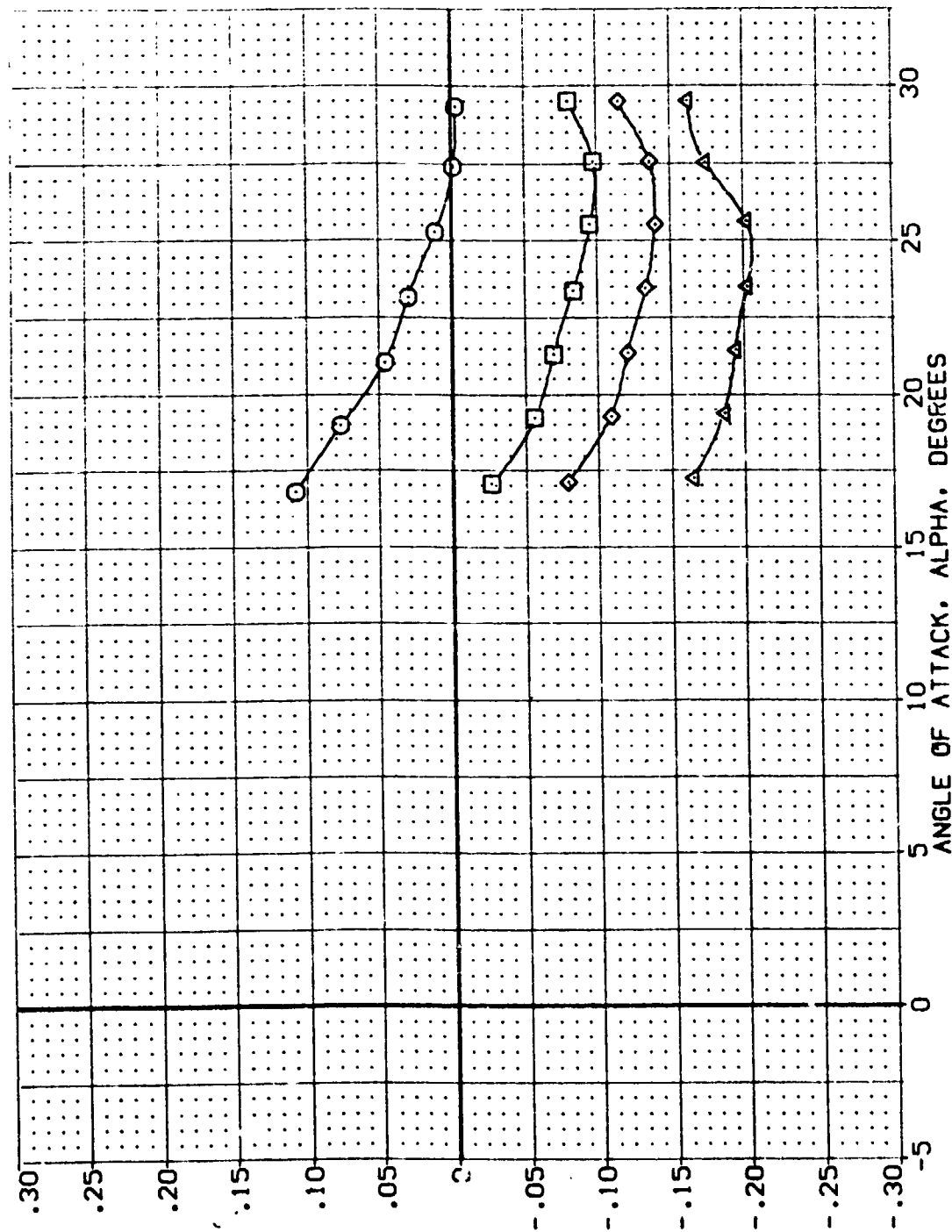
FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

1

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02057) 0A628 B26C9G|547F8 V116E26V8RSX9  
 (B02046) 0A628 B26C9G|547F8 V116E26V8RSX9  
 (B02051) 0A628 B26C9G|547F8 V116E26V8RSX9  
 (B02051) 0A628 B26C9G|547F8 V116E26V8RSX9

ELEVON H/BV SPOBRK BOFLAP REFERENCE INFORMATION  
 -10.000 .035 25.000 -12.000 SREF 4.4119 SQ.FT.  
 .000 .035 25.000 -12.000 LREF 19.2299 INCHES  
 5.000 .035 25.000 -12.000 BREF 37.9359 INCHES  
 15.000 .035 25.000 -12.000 YMRP 43.5974 INCHES  
 ZMRP 15.0000 INCHES  
 SCALE 15.1875 INCHES  
 SCALE .0405



PITCHING MOMENT COEFFICIENT, CLM

FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802057) 0A628 B26C5G1547F8 V116E26V8R5X9  
 (802046) 0A628 B26C5G1547F8 V116E26V8R5X9  
 (802054) 0A628 B26C5G1547F8 V116E26V8R5X9  
 (802053) 0A628 B26C5G1547F8 V116E26V8R5X9

ELEVON H/BW SPDRK BOFLAP REFERENCE INFORMATION  
 -10.000 .035 25.000 -12.000 SREF 4.4119 SO.FT.  
 000 .035 25.000 -12.000 LREF 19.2299 INCHES  
 5.000 .035 25.000 -12.000 BREF 37.9359 INCHES  
 15.000 .035 25.000 -12.000 YMRP 43.5974 INCHES  
 ZMRP 15.0000 INCHES  
 SCALE 15.1875 INCHES  
 SCALE .0405

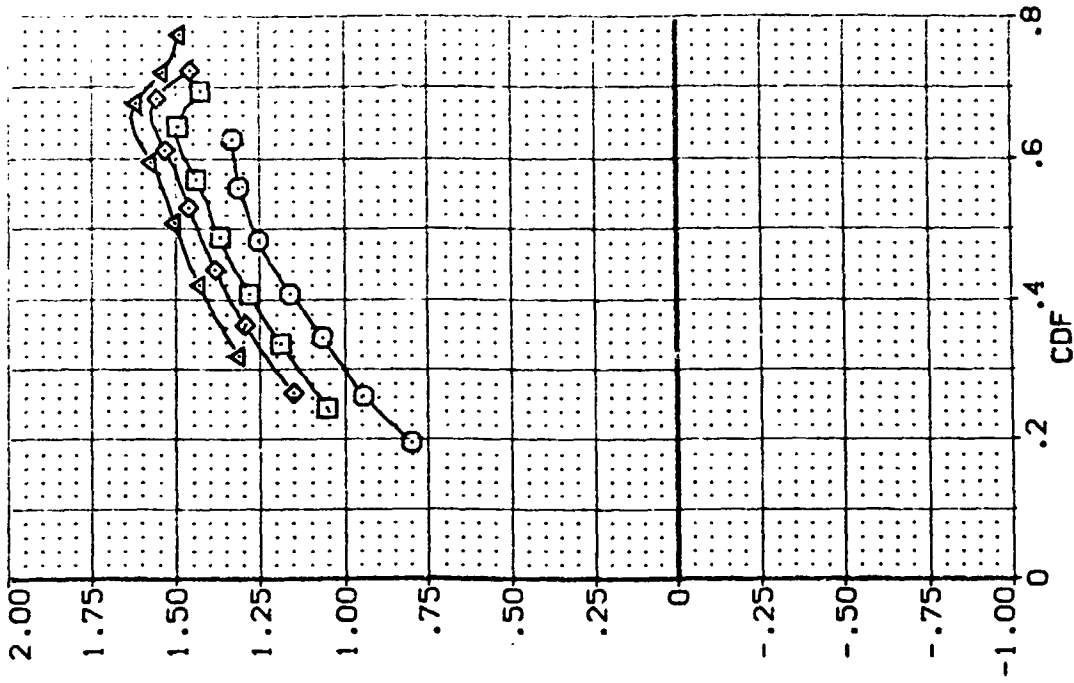
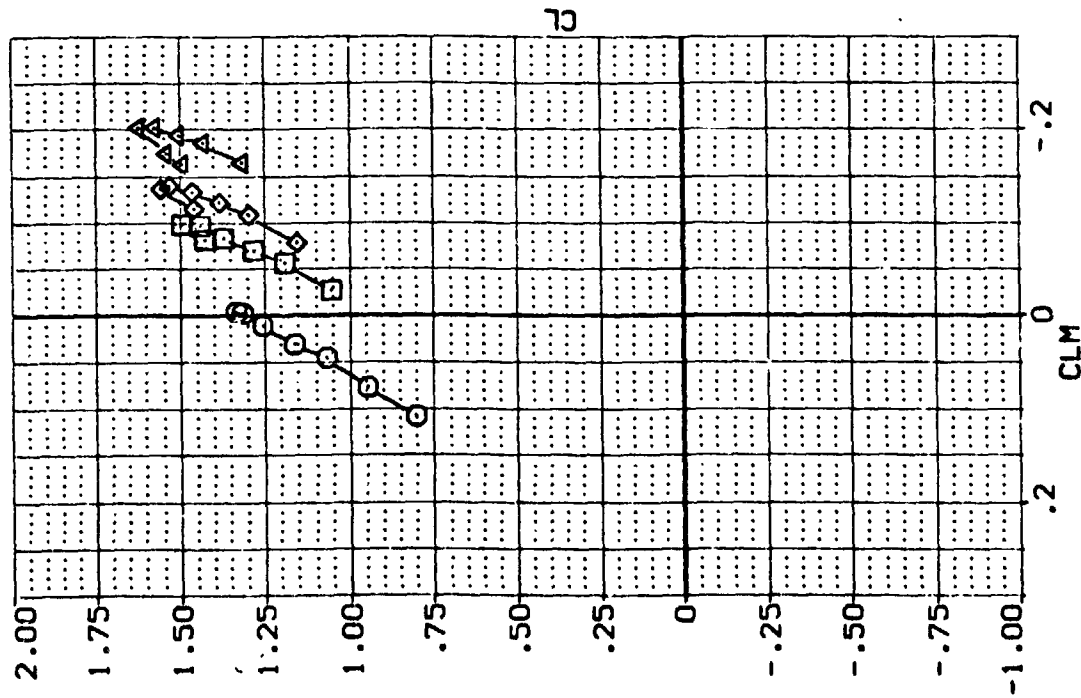


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(80Z057)	0A628 B26C9G1547F8 V116E26V8R5X9	-10.000	.035	25.000	-12.000	SREF 4.4119 SO.FT
(80Z046)	0A628 B26C9G1547F8 V116E26V8R5X9	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
(80Z054)	0A628 B26C9G1547F8 V116E26V8R5X9	5.000	.035	25.000	-12.000	BREF 37.9339 INCHES
(80Z053)	0A628 B26C9G1547F8 V116E26V8R5X9	15.000	.035	25.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1975 INCHES
						SCALE .0405

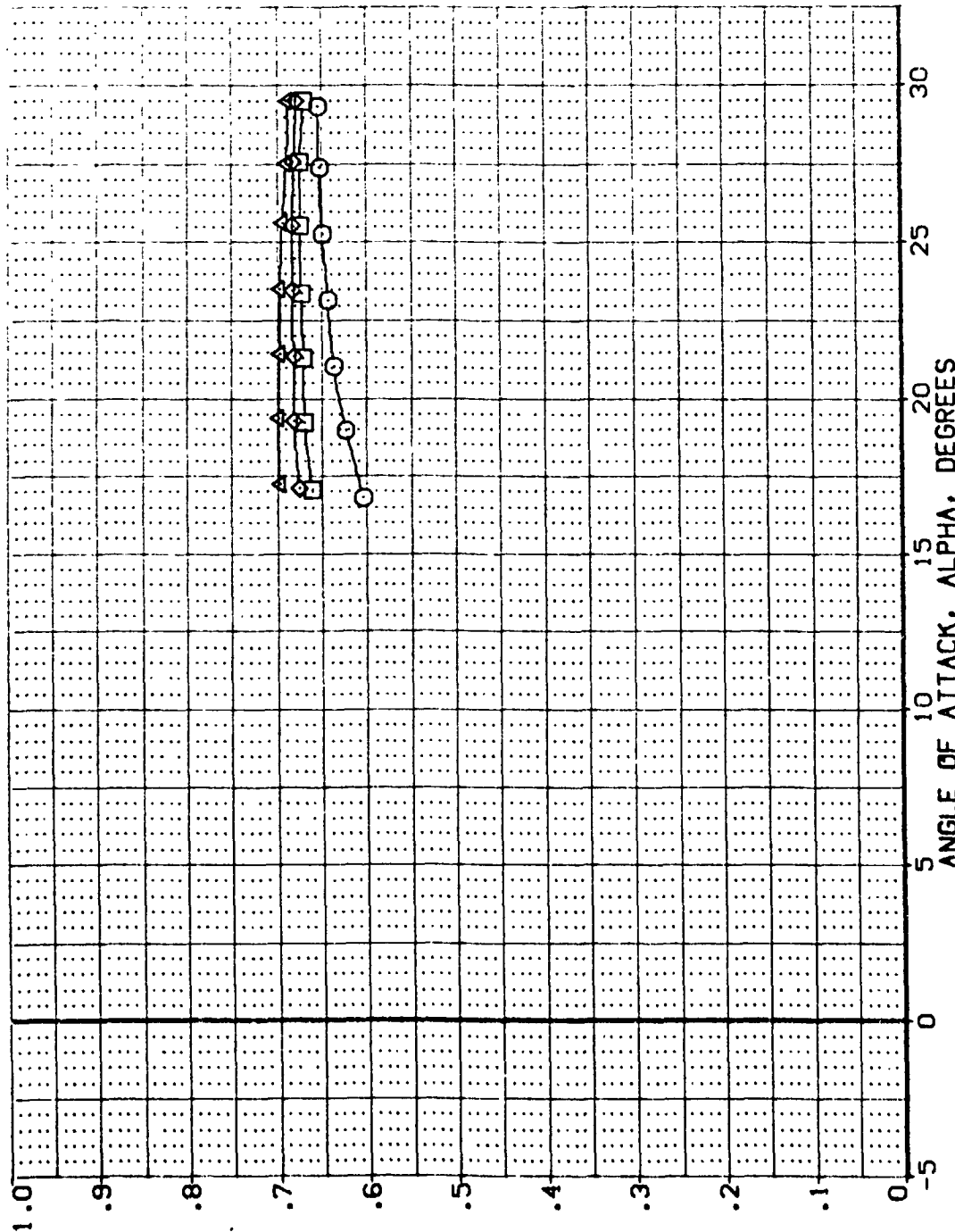


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035  
 (A)MACH = .20 PAGE 169

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

# DATA SET SYMBOL

(BD2057)  
(BD2046)  
(BD2054)  
(BD2053)

# CONFIGURATION DESCRIPTION

0A628 B26C3G1SH7F8  
0A628 B26C3G1SH7F8  
0A628 B26C3G1SH7F8  
0A628 B26C3G1SH7F8

# ELEVON

-10.000  
.000  
5.000  
15.000

# H/BW

.035  
.035  
.035  
.035

# SPOBRK

25.000  
25.000  
25.000  
25.000

# BOFLAP

-12.000  
-12.000  
-12.000  
-12.000

# REFERENCE INFORMATION

SREF 4.4119 SQ.FT.  
LREF 19.2293 INCHES  
BREF 37.9393 INCHES  
XMRP 43.9974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405 SCALE

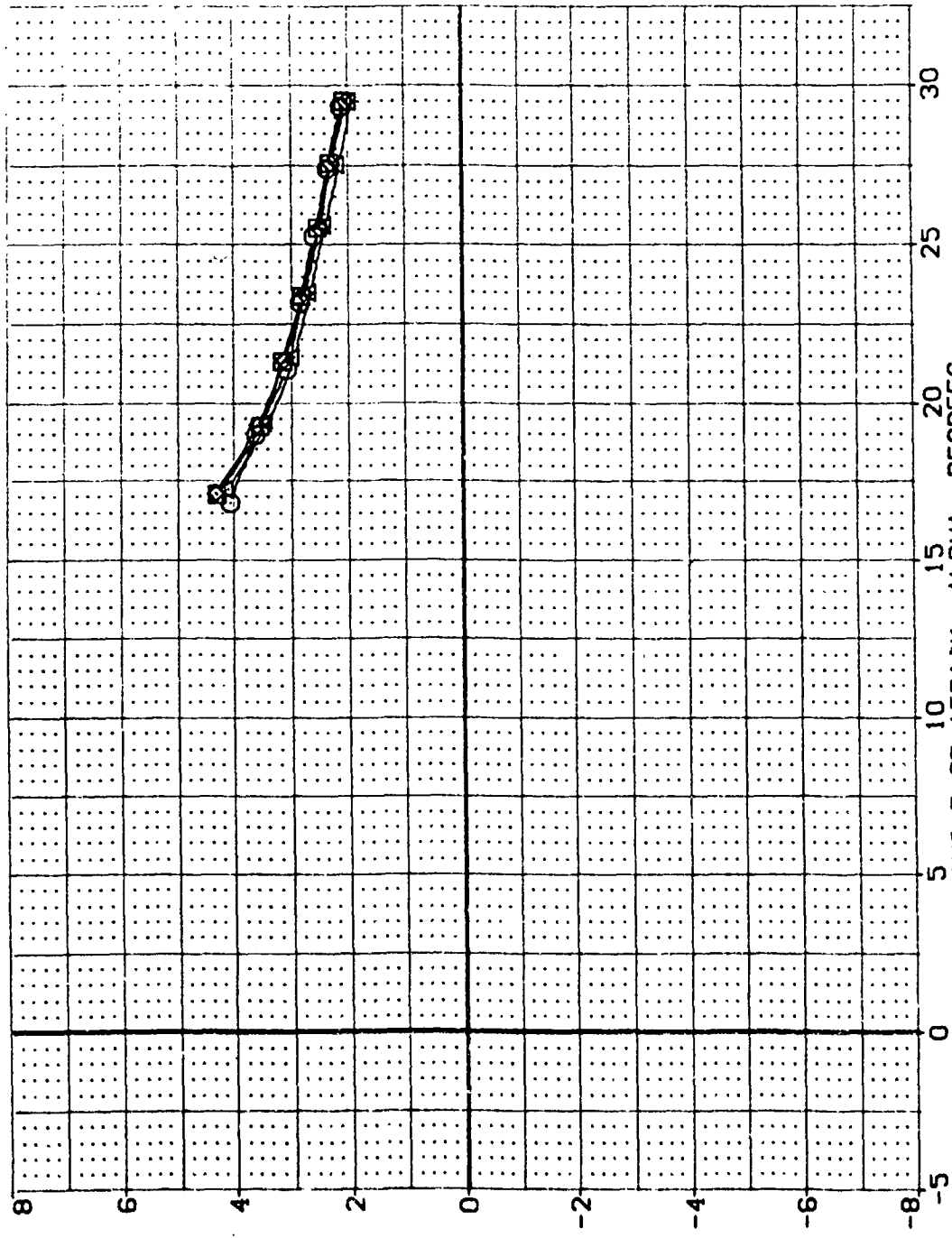


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

(A)MACH = .20

CA

**SYMBOL** ○



FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

0A628 B26CG15M7F8 W116E26V8R5X9

(1DZ057)

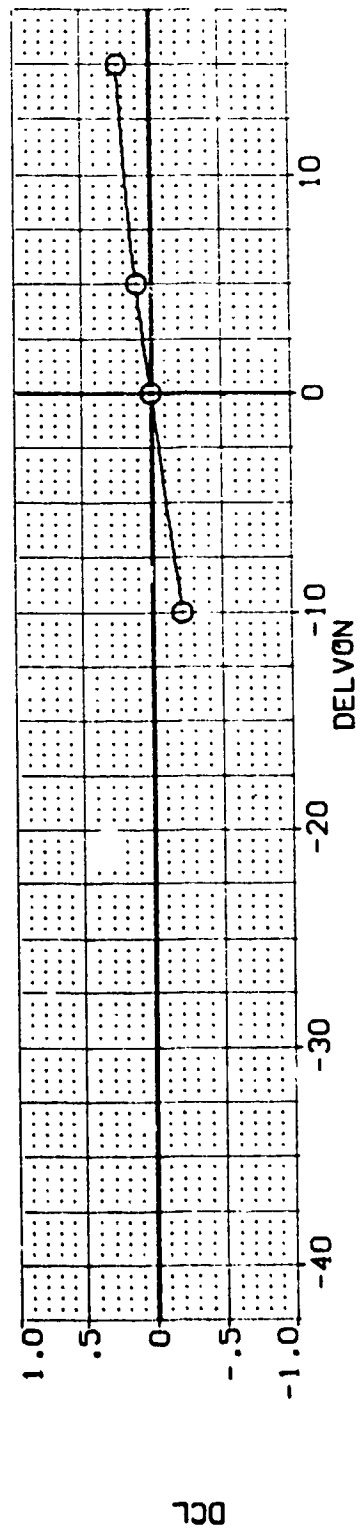
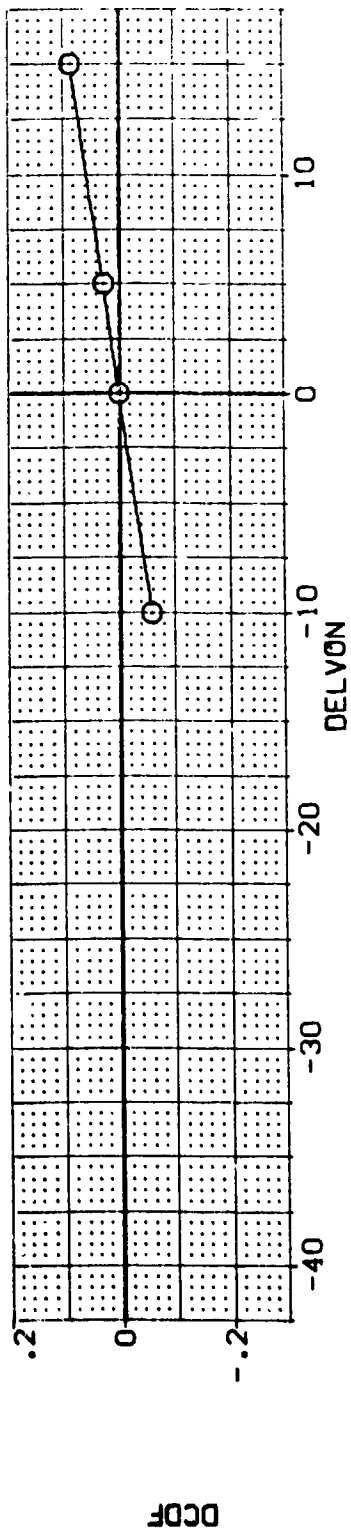
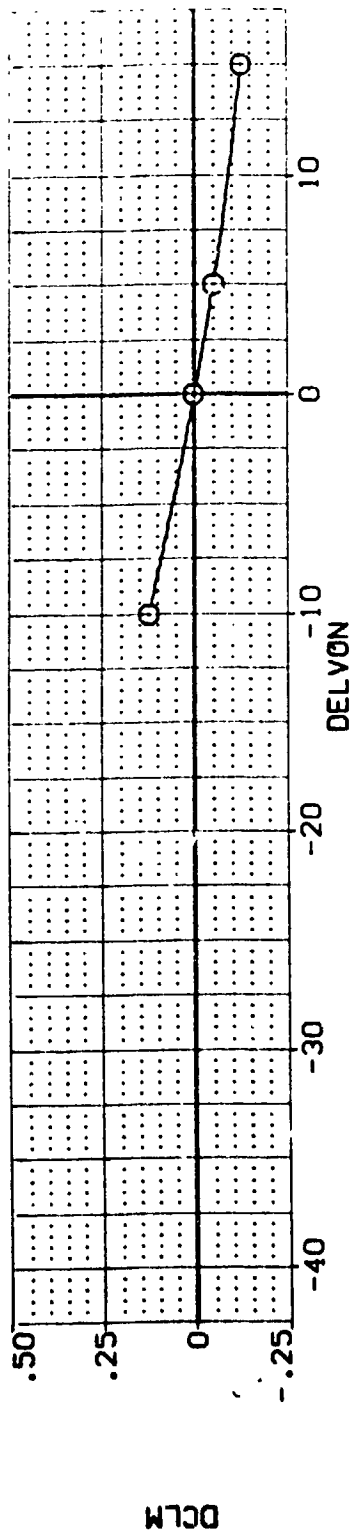
SYMBOL  
OALPHA  
20.000MACH  
BOFLAP  
RUDDER  
H/BWPARAMETRIC VALUES  
BETA  
AILRON  
SPDRK  
H/BWDATA SOURCE  
DELVN  
-10.000  
5.000DATASET  
1DZ046  
1DZ053SREF  
LREF  
BREF  
YMRP  
ZMRP  
SCALEREFERENCE INFORMATION  
4.4119  
19.2288  
37.9359  
43.5374  
0.0000  
15.1875  
0.0405  
SO.FT.  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
SCALE

FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035



(10Z057)

0A628 B26C9G15M7F8 W116E26V8R5X9

SYMBOL	ALPHA	MACH	PARA-METRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	25.000	BOFLAP	.200 BETA	DELTON	SREF SQ.FT.
		RUDDER	-12.000 AILRON	DELTON	LREF INCHES
		H/BV	.000 SPDRK	DELTON	BREF INCHES
			.035	DELTON	XMRP INCHES
				DELTON	YMRP INCHES
				DELTON	ZMRP INCHES
				DELTON	SCALE

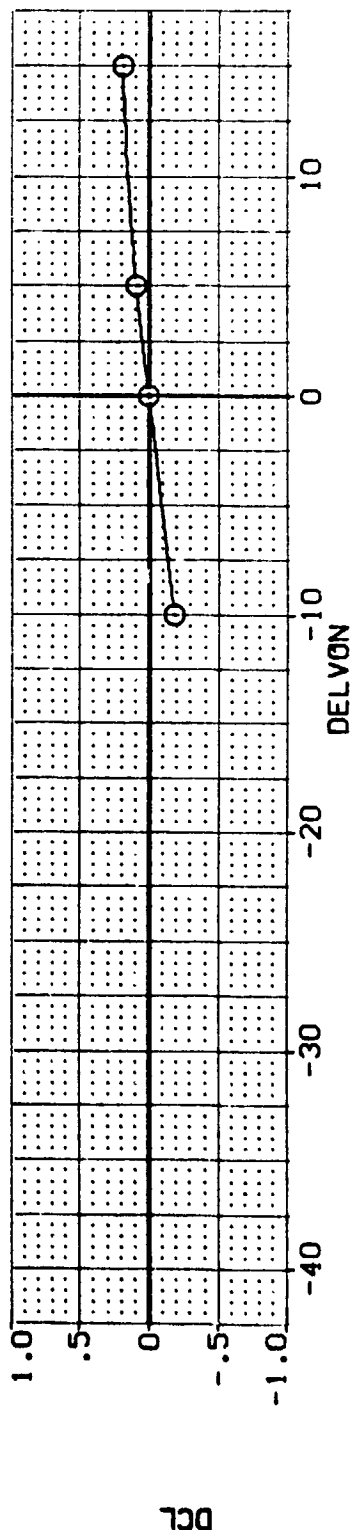
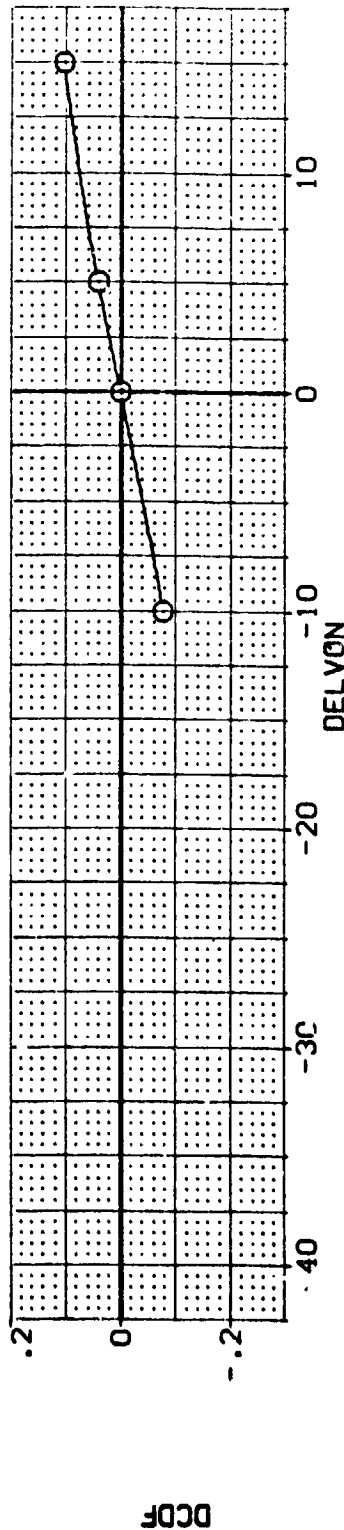
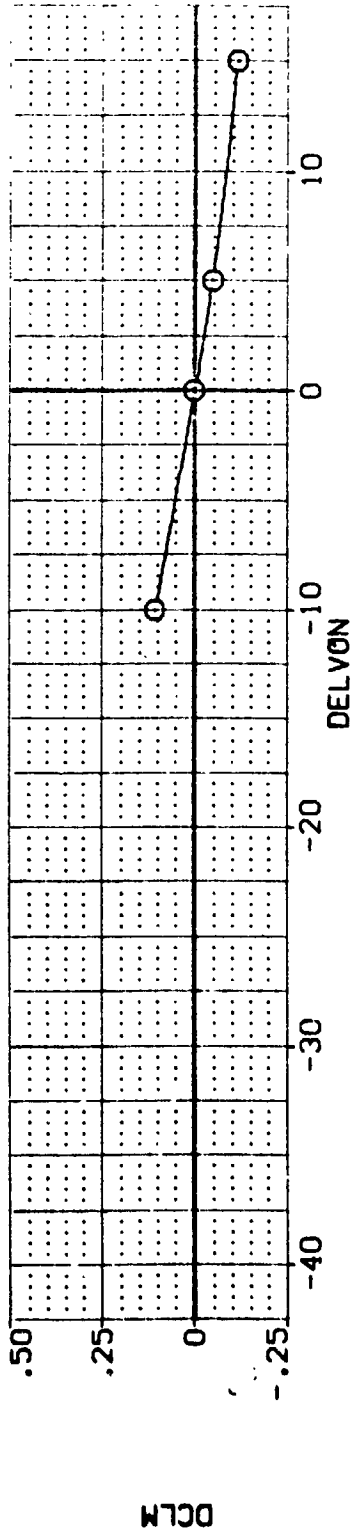


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

(1DZ057)

0A528 B26C9G15M7F8 W116E26V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	30.000	BDFLAP	.200 BETA	DEL VON	SO. FT.
		RUDDER	-12.000 AILRON	.000 LREF	INCHES
		H/BW	.000 SPOBRK	15.000 BREF	INCHES
			.035	5.000 XMRP	INCHES
				15.000 ZMRP	INCHES
				SCALE	SCALE
					.0405

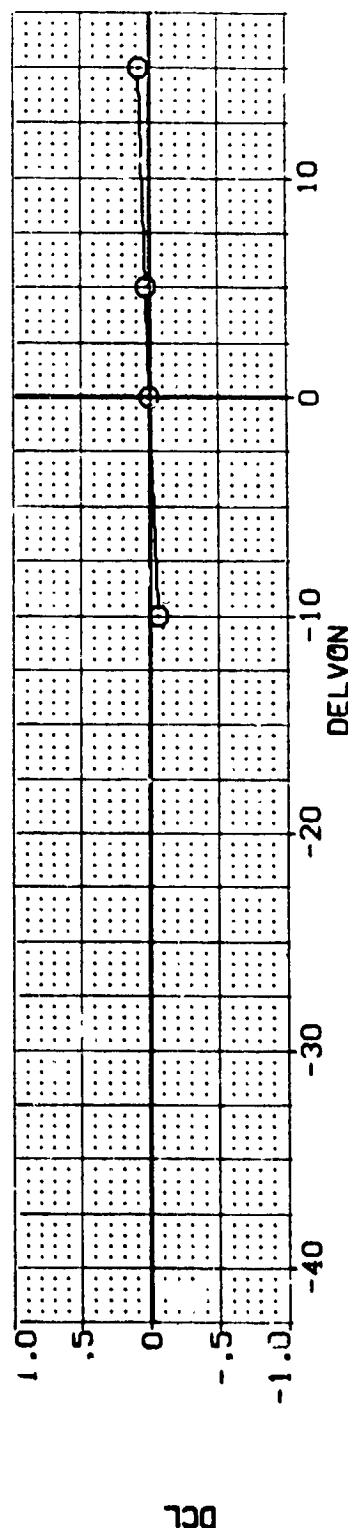
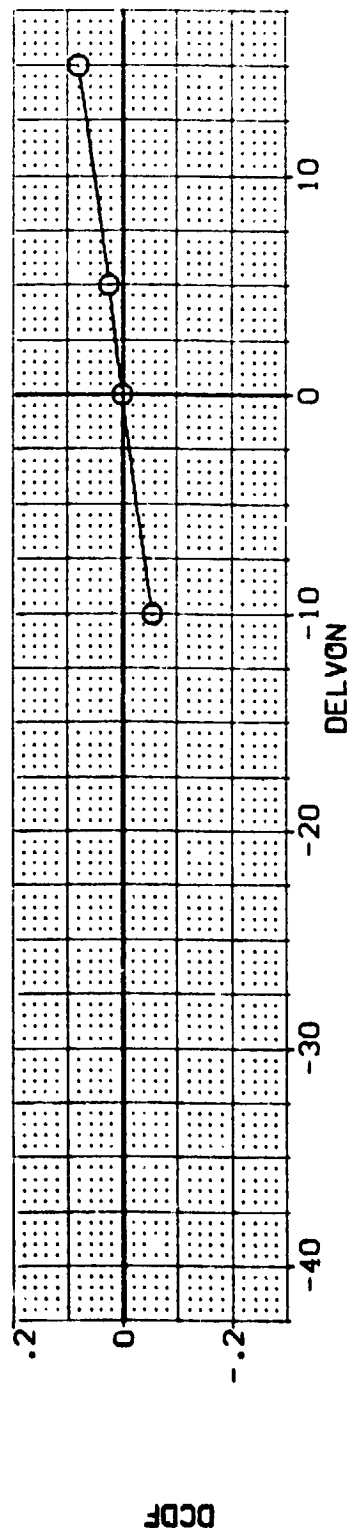
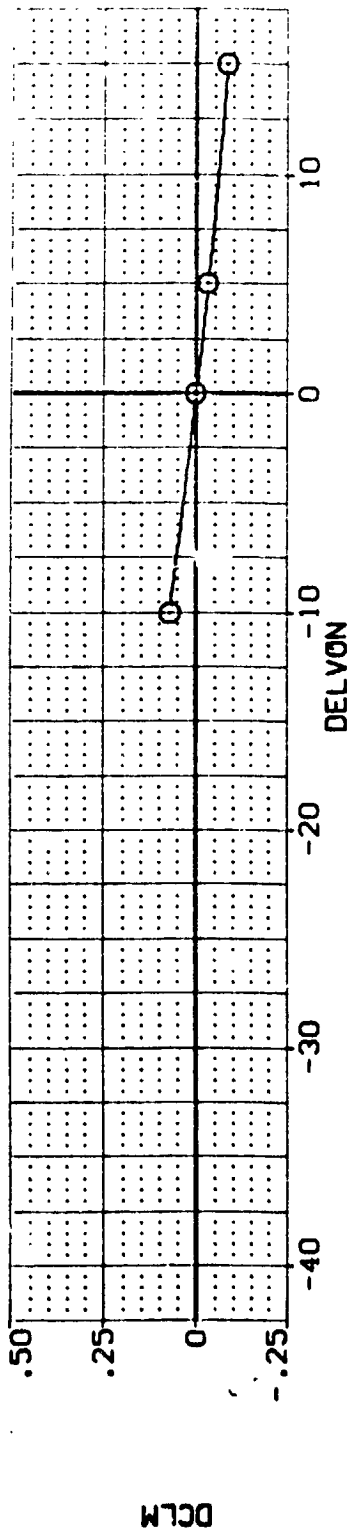


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

1-1

0A628 B26C9G15M7F8 W116E26V8R5X9 (10Z057)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	15.000	MACH .200 BFLAP -12.000 RUDDER .000 W/BV .035	BETA ATLRON SPDRK	SO. FT. INCHES INCHES INCHES INCHES INCHES SCALE
			.000 10Z057 10Z054	4.4119 19.2299 37.9359 43.5974 0.000 15.1875
			DELTON -10.000 5.000	SREF LREF BREF XMRP YMRP ZMRP SCALE
			25.000 10Z054	
			DELTON -10.000 5.000	
			10Z046 10Z053	
			DELTON 15.000	

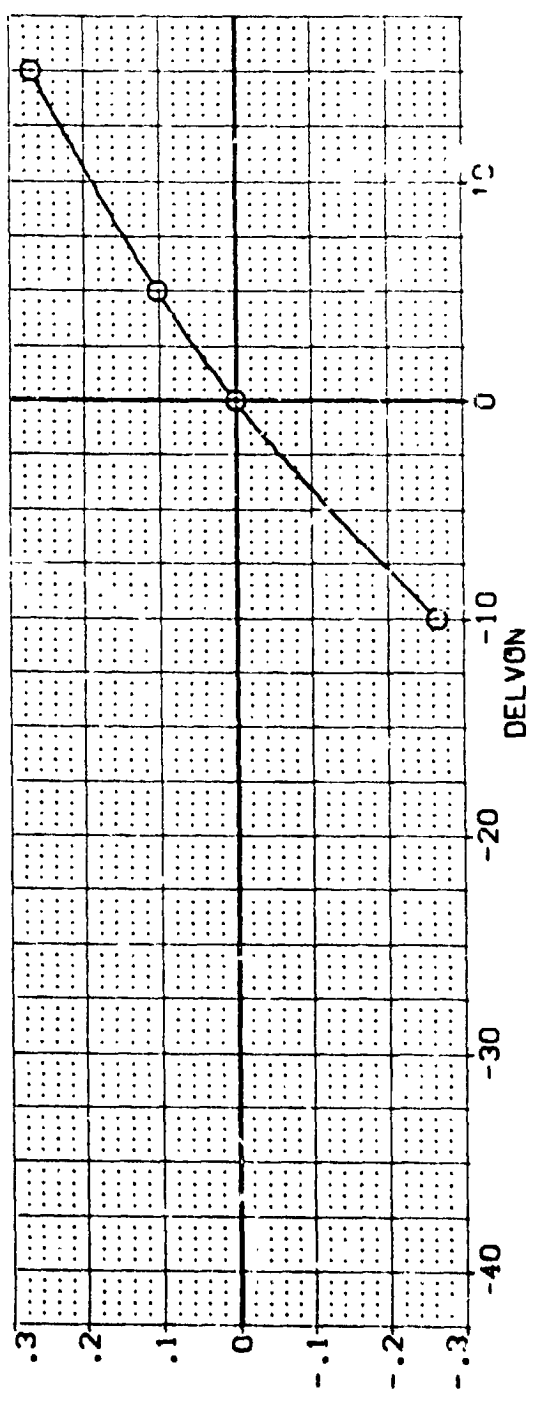
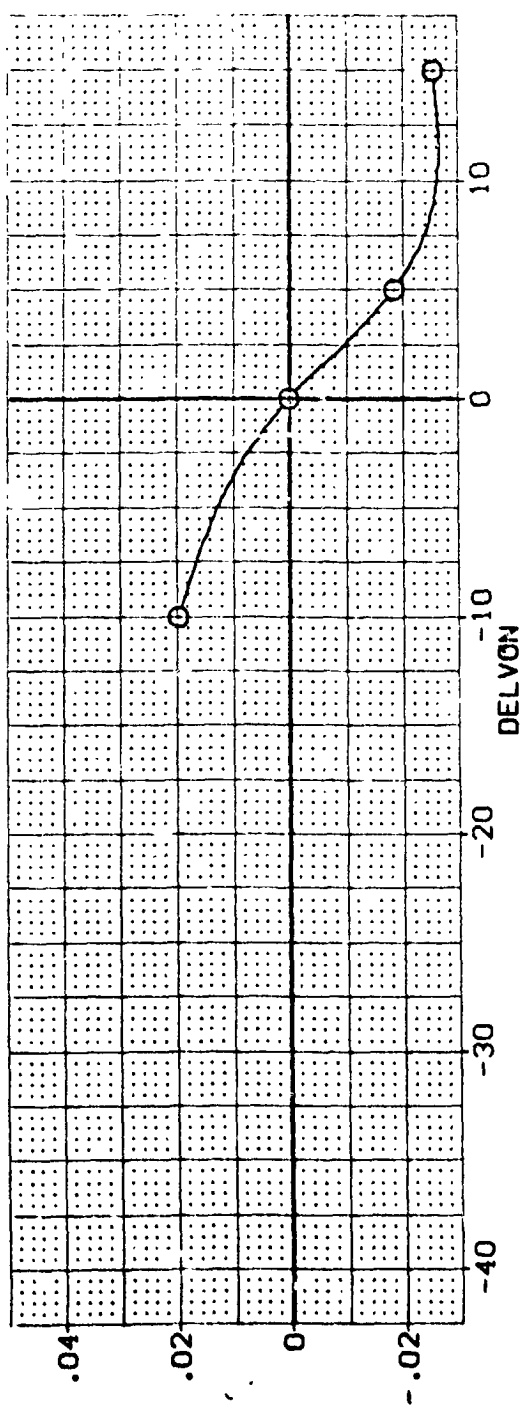


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BV = 0.035

0A62B 826C9G15M7F8 W116E26V8R5X9 (1DZ057)

SYMBOL		ALP		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
O	20.000	MACH	.200	BETA	.000	DELTON	15.000	SREF	4.4119
		BOFLAP	-12.000	AIRLON	.000	DELTON	.000	LREF	19.2299
		RUDER	.000	SPDRK	25.000	DELTON	15.000	BREF	37.9359
		H/BV	.035			DELTON	15.000	YREF	43.5974
								ZREF	15.1875
								SCALE	.0405

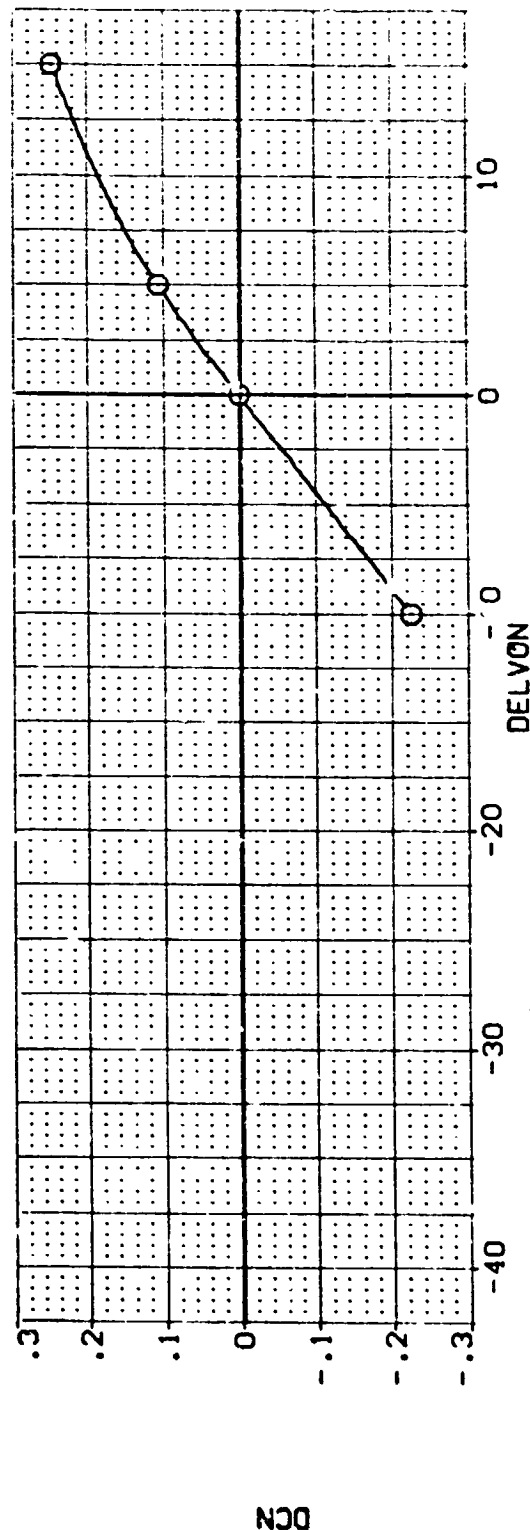
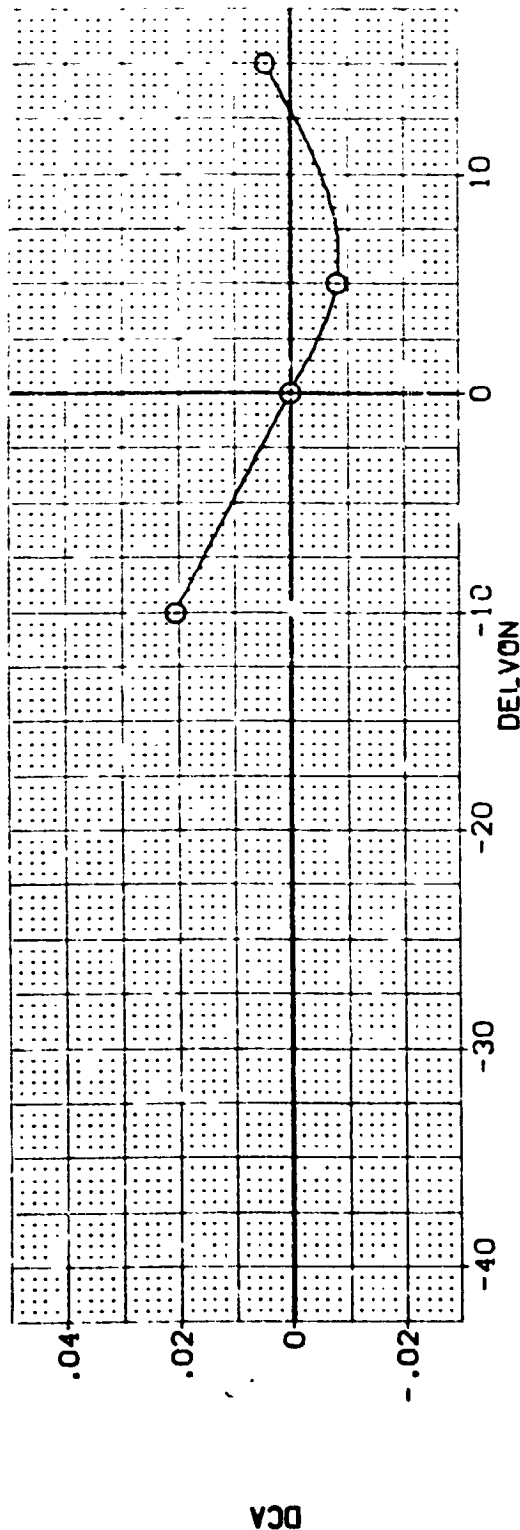


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

1

(1DZ057)

0A62B B26C9G15M7F8 W116E26V8R5X9

REFERENCE INFORMATION  
 4.4119 SO.FT.  
 19.2299 INCHES  
 37.9359 INCHES  
 43.5974 INCHES  
 15.1875 INCHES  
 .0405 SCALE

DATA SOURCE  
 DELVON  
 -10.000  
 5.000

PARAMETRIC VALUES  
 .000 .000 .000  
 1DZ057 1DZ054 1DZ053

DELTA  
 .200  
 .000  
 .035

WACH  
 .000  
 .000  
 .000

SYMBOL  
 O

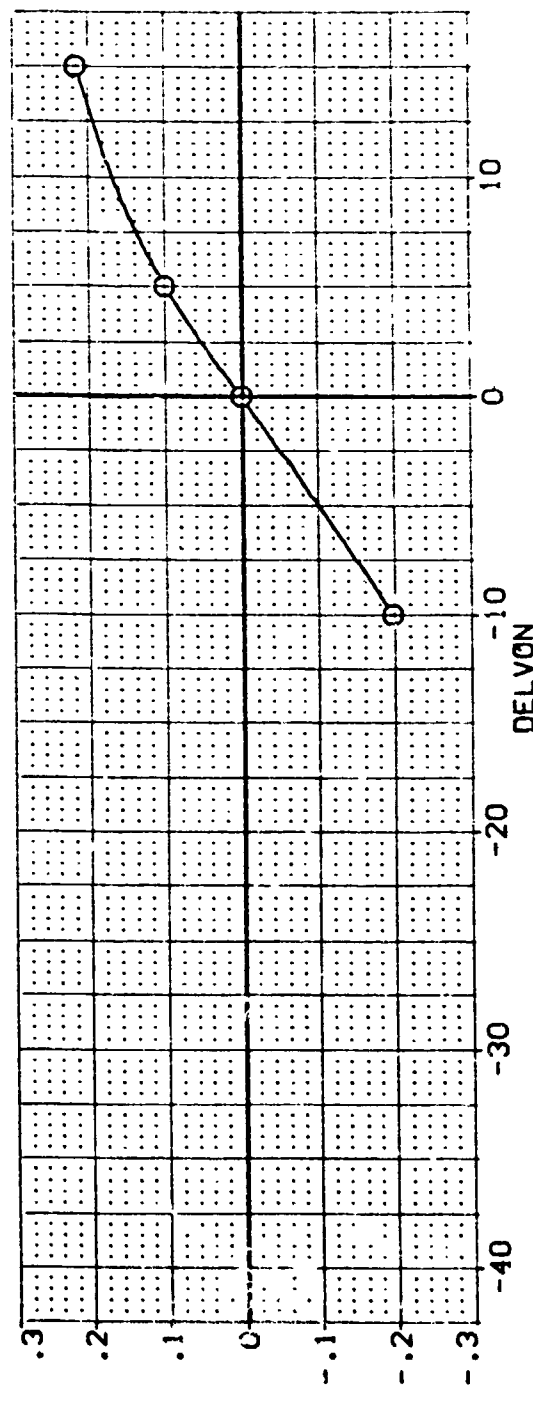
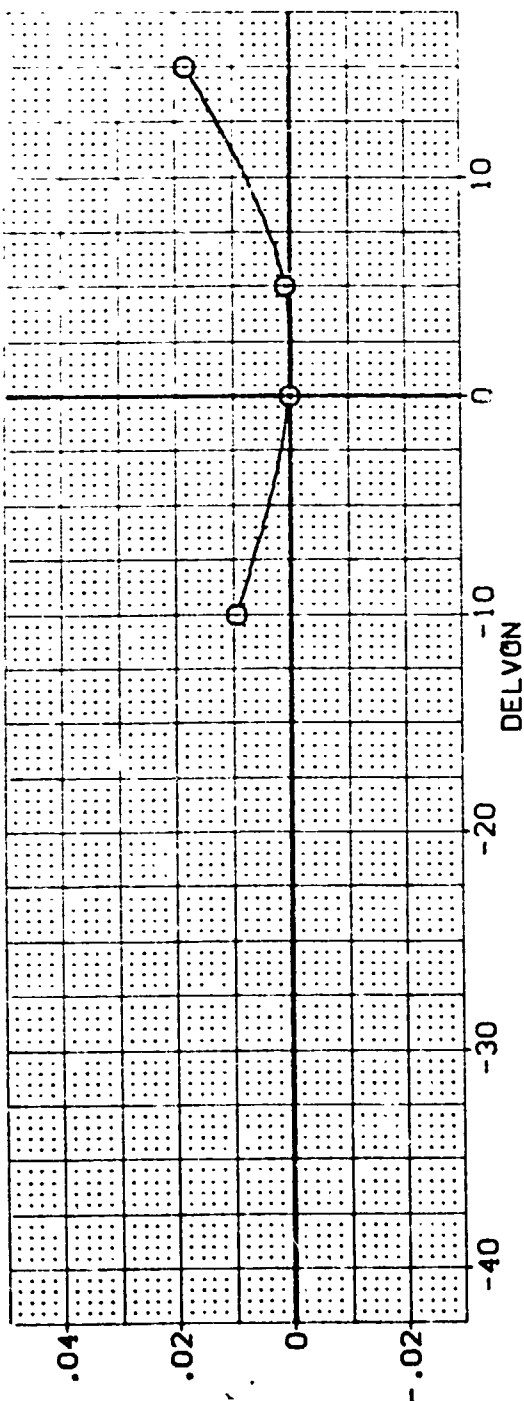


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035

0A628 826C9G15M7F8 W116E26V8R5X9 (10Z057)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	30.000				
		BDFLAP	.200 BETA	.000 DATASET	SREF
		RUDGER	-12.000 AILRON	.000 10Z057	LREF
		H/BW	.000 SPDRK	25.000 10Z054	BREF
			.035	5.000	XMRP
					YMRP
					ZMRP
					SCALE
					SO.FT.
					INCHES
					INCHES
					INCHES
					INCHES
					INCHES
					SCALE

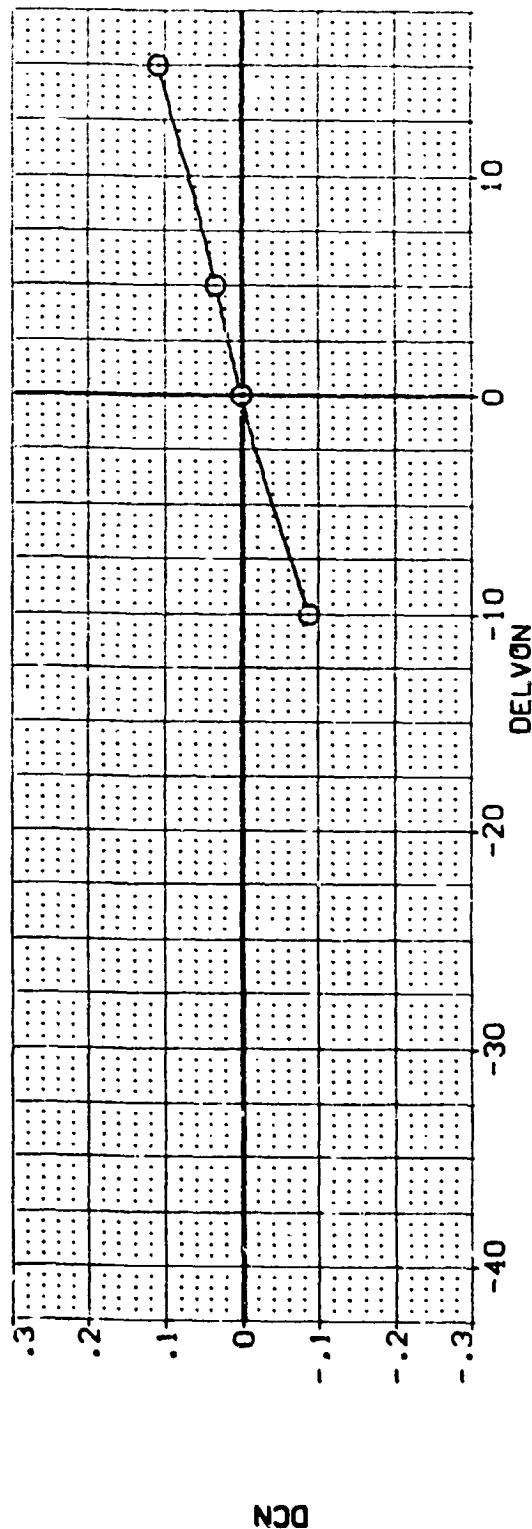
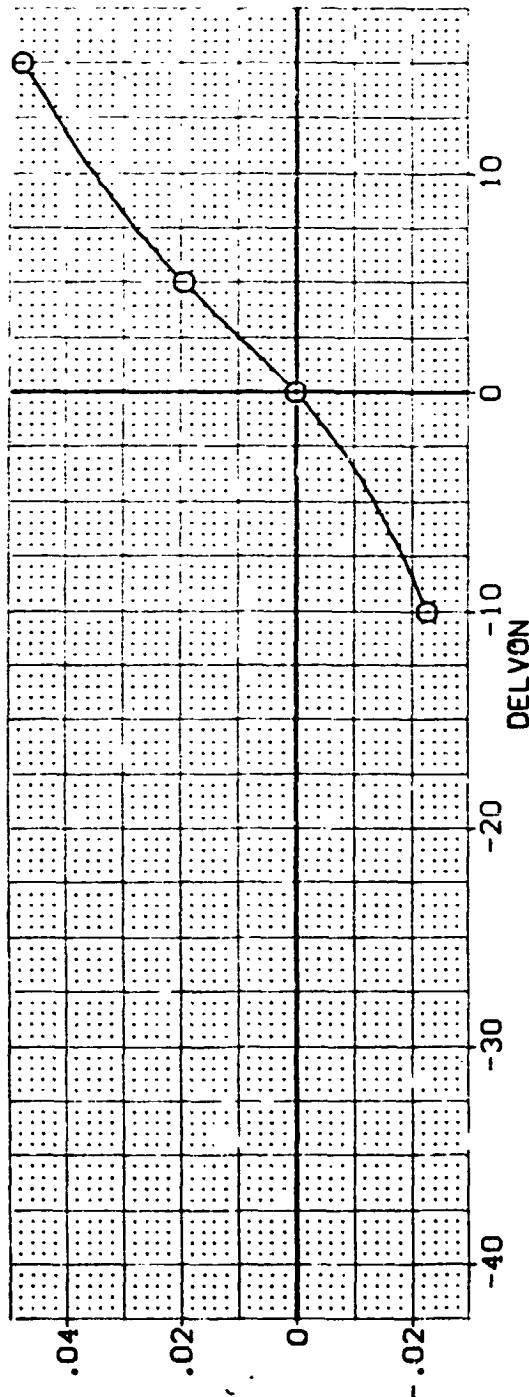


FIG 10 ELEVON EFFECTIVENESS (NO GAPS) IN PRESENCE OF GROUND H/BW = 0.035



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		H/BW		SPDRK		BOFLAP		REFERENCE INFORMATION	
(802053)	Q	QAC28	B26C9G 5H7F8J43V1 6E28V8KX10	.000	.035	.000	.035	.000	.000	-12.000	-12.000	SREF	4.4119
(802062)	Q	QAC28	B26C9G 5H7F8J43V1 6E28V8KX10	.000	.035	.000	.035	.000	.000	-12.000	-12.000	LREF	19.2299
												BREF	37.9359
												YMRP	43.5974
												ZMRP	.0000
												SCALE	15.1875
													INCHES
													INCHES
													INCHES
													SCALE

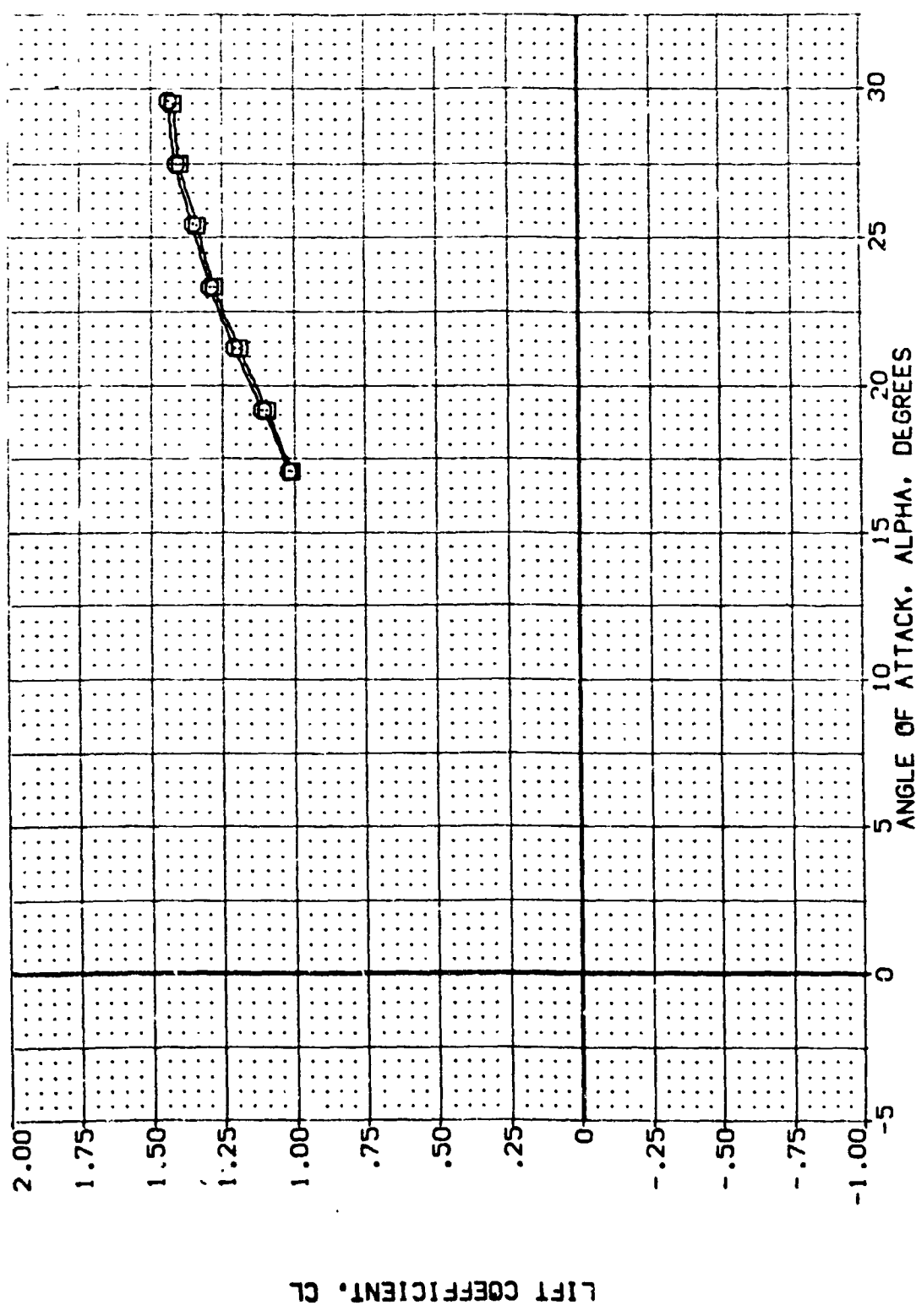


FIG 11 EFFECT OF VERTICAL TAIL FLARE, UNDERWING PODDED ENGINES, H/BW = 0.035  
(A)MACH = .20



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (BD2063) 0AS28 B26C9G1S47F8J43W116E28V85X10  
 (BD2062) 0AS28 B26C9G1S47F8J43W116E29V85X10

ELEVON H/BW SPOBRK BDFLAP  
 .000 .035 .000 -12.000  
 .000 .035 25.000 -12.000

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5374 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1375 INCHES  
 SCALE .0405



FIG 11 EFFECT OF VERTICAL TAIL FLARE, UNDERWING PODDED ENGINES,  $H/BW = 0.035$

(A)MACH = .20



14  
W  
P

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION	
(802063)	0A628 826C9G1SMTF8J43V116E26V85X10	.000	.035	.000	-12.000	SREF	4.4119 SO.FT.
(802062)	0A628 826C9G1SMTF8J43V116E26V85X10	.000	.035	25.000	-12.000	LREF	19.2299 INCHES
						BREF	37.9359 INCHES
						XMRP	43.5974 INCHES
						YMRP	.0000 INCHES
						ZMRP	15.1875 INCHES
						SCALE	.0405

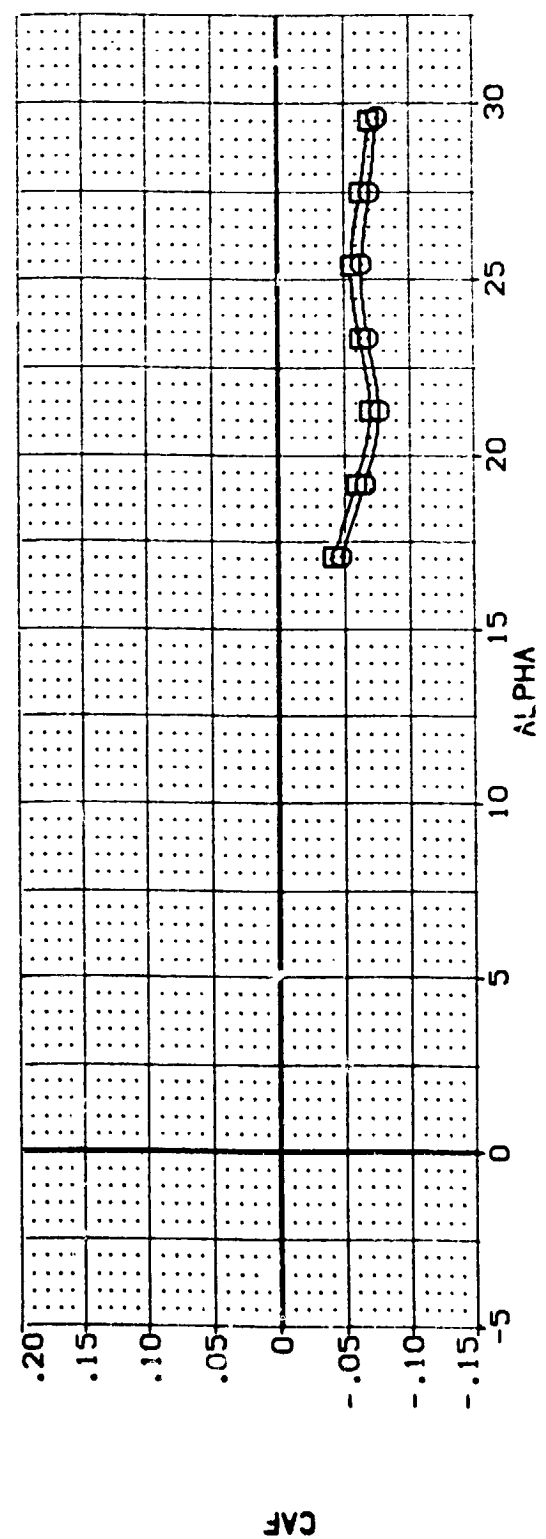
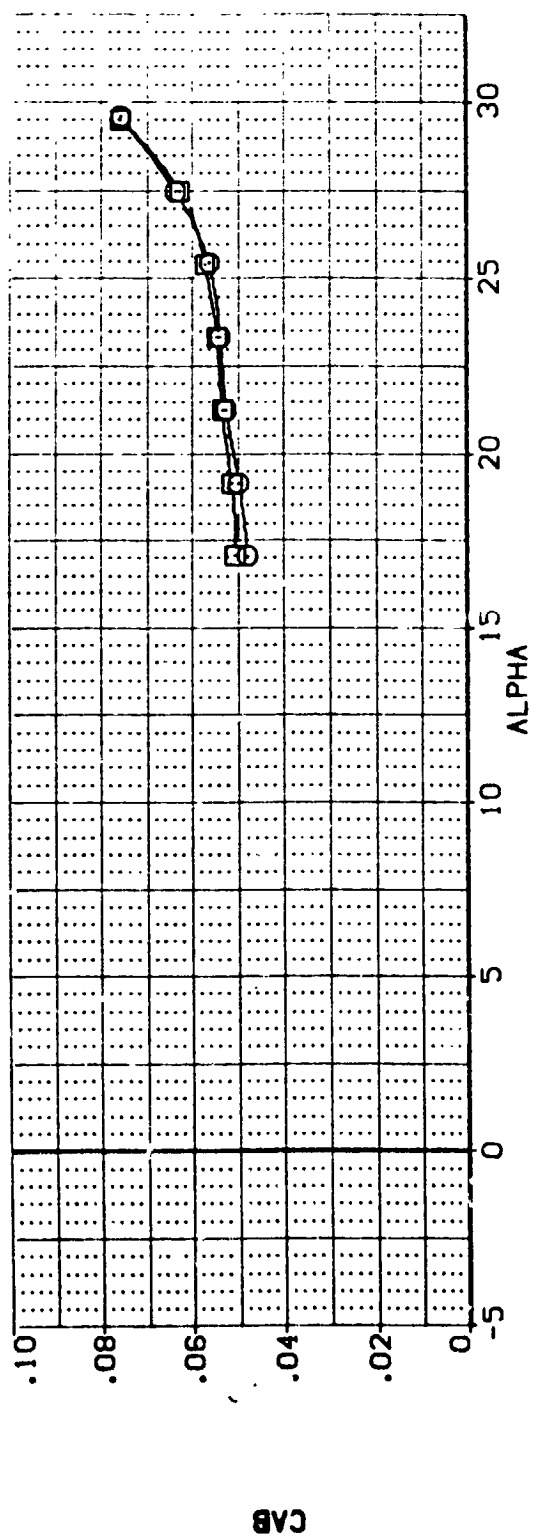


FIG 11 EFFECT OF VERTICAL TAIL FLARE, UNDERWING PODDED ENGINES, H/BW = 0.035  
(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802053)	0A628 B26C5G1547F8J43V116E28V8R5X10	.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(802062)	0A628 B26C5G1547F8J43V116E28V8R5X10	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

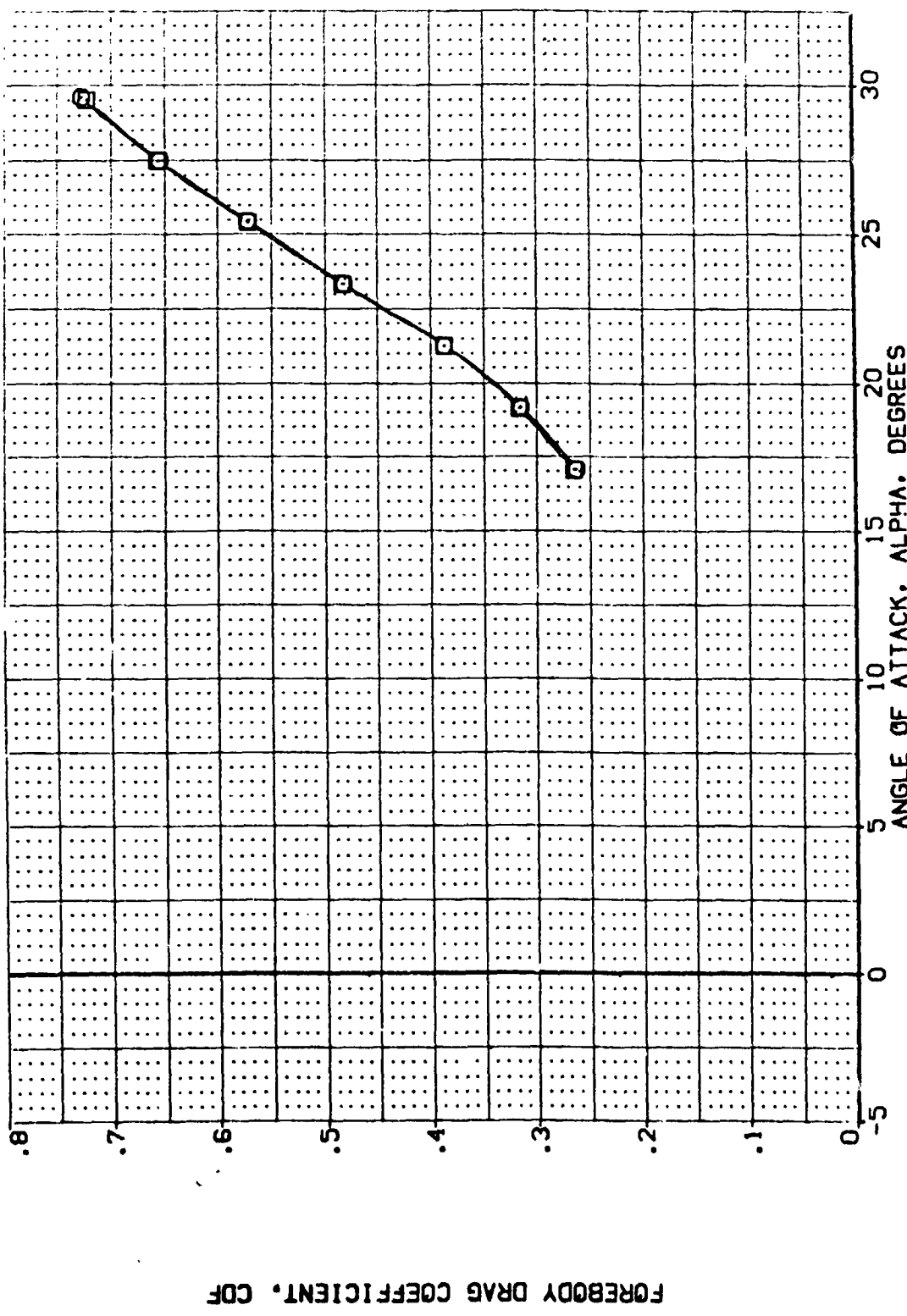


FIG 11 EFFECT OF VERTICAL TAIL FLARE, UNDERWING PODDED ENGINES, H/BW = 0.035  
 (A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B07063)	0A628 B26C9G15H7E8J43V116E28V85X10	.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B07062)	0A628 B26C9G15H7E8J43V116E28V85X10	.000	.035	25.000	-12.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

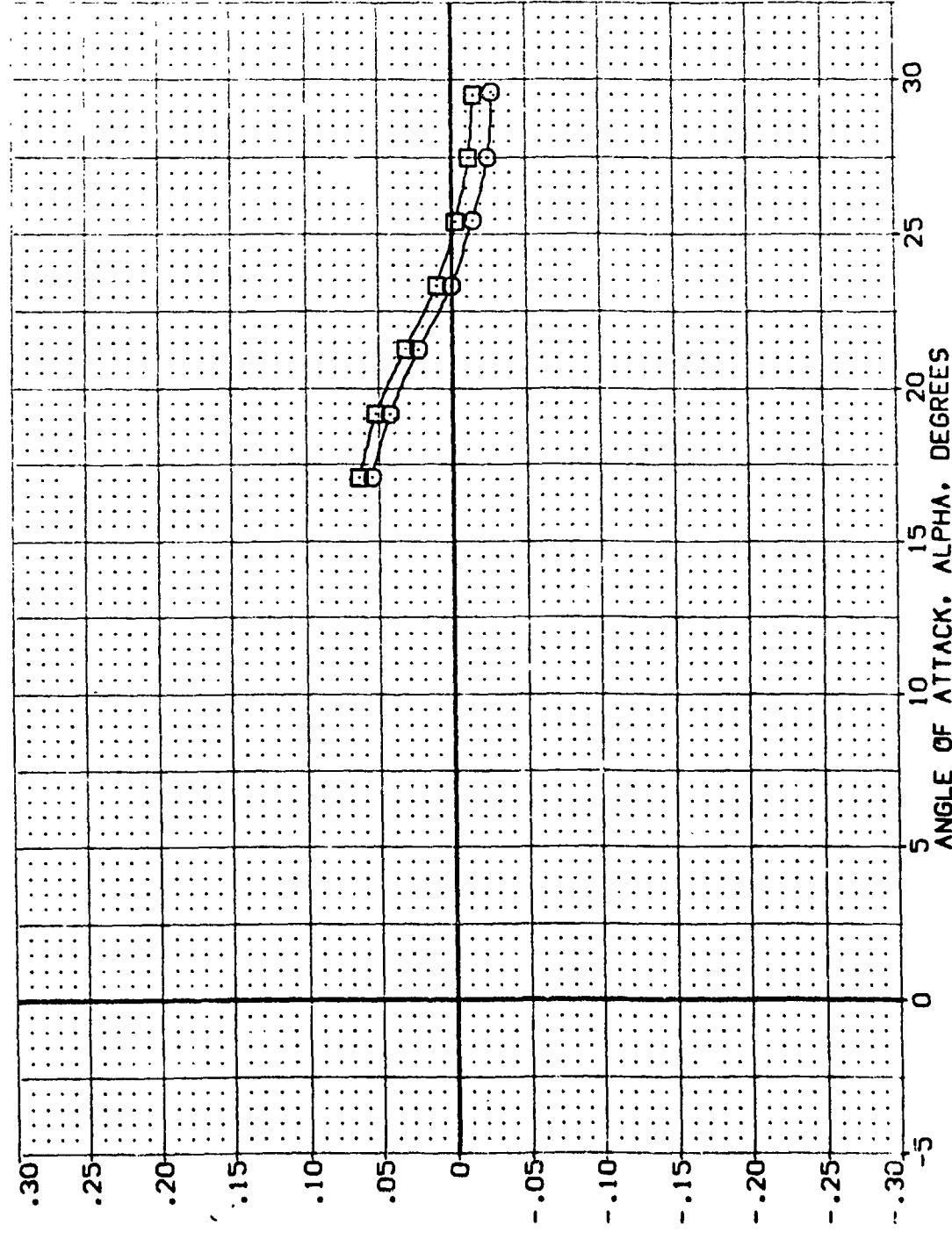


FIG 11 EFFECT OF VERTICAL TAIL FLARE, UNDERWING PODDED ENGINES, H/BW = 0.035  
 (A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02053) B 0A628 B26C9G1547F8J43V116E28V8K5X10  
 (B02052) B 0A628 B26C9G1547F8J43V116E28V8K5X10

ELEVON H/BW SFOBRK BDFLAP REFERENCE INFORMATION  
 .000 .035 .000 -12.000 SREF 4.4119 SO.FT.  
 .000 .035 25.000 -12.000 LREF 19.2299 INCHES  
 XMRP 43.9359 INCHES  
 YMRP 0.000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

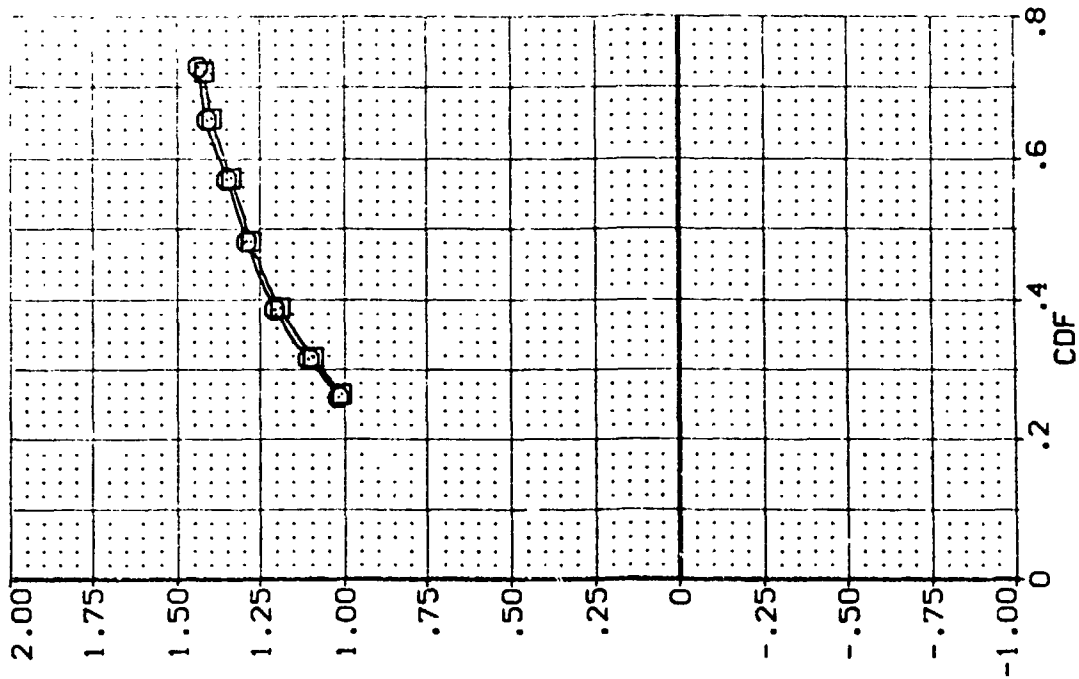
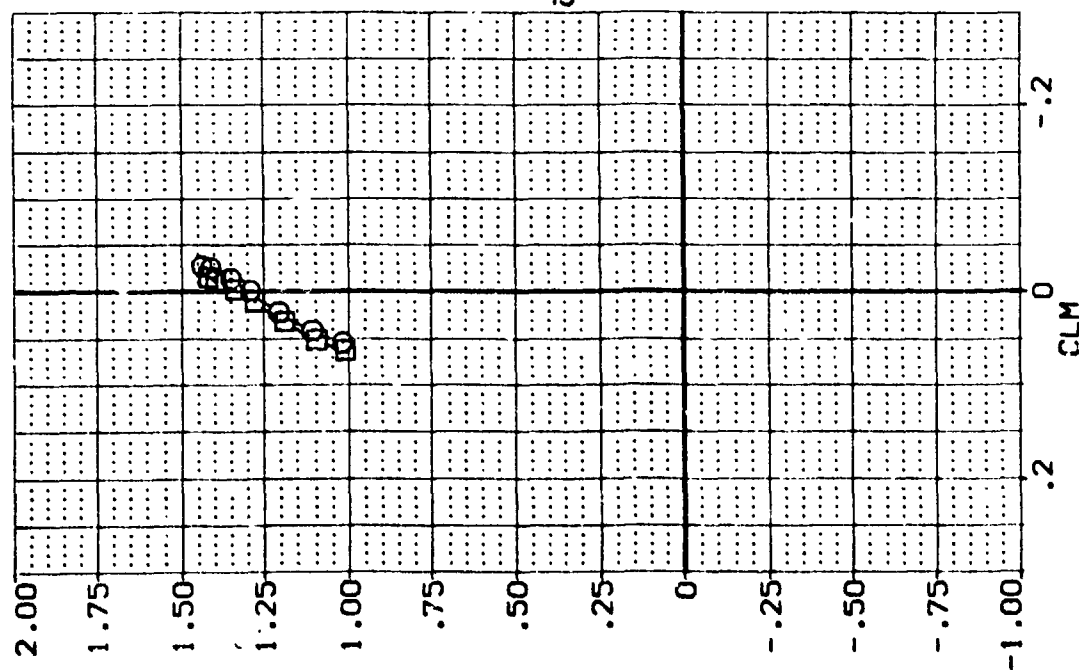


FIG 11 EFFECT OF VERTICAL TAIL FLARE, UNDERWING PODDED ENGINES, H/BW = 0.035

(A)MACH = .20



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (BD2063) QAS28 B26C9G15M7F8J43V116E28V8R5X10  
 (BD2062) QAS28 B26C9G15M7F8J43V116E28V8R5X10

ELEVIN H/BW SPOBRK BOFLAP  
 .000 .035 .000 -12.000  
 .000 .035 25.000 -12.000

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

FOREBODY LIFT TO DRAG RATIO, LF/DF

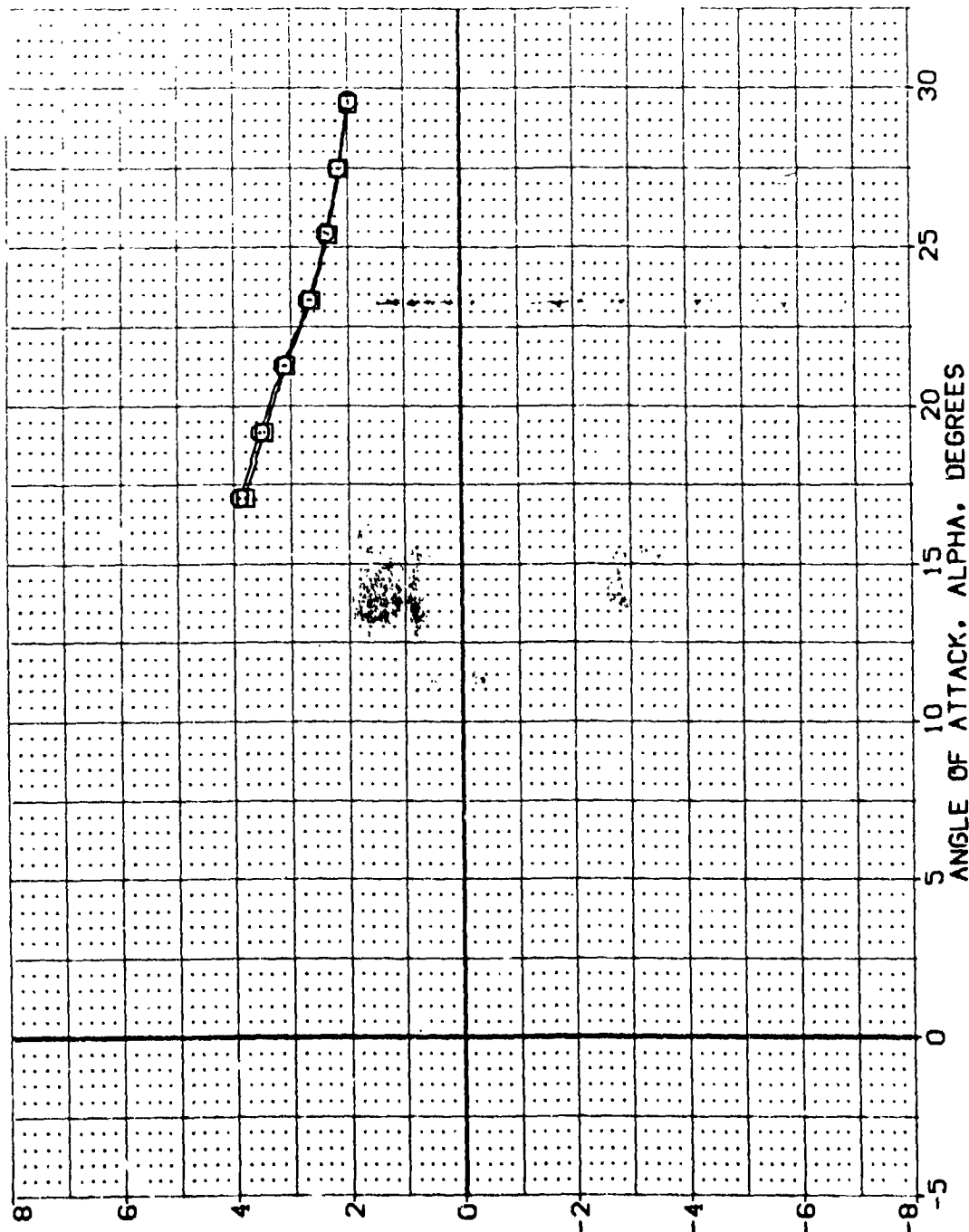


FIG 11 EFFECT OF VERTICAL TAIL FLARE, UNDERWING PODDED ENGINES, H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BDFLAP	REFERENCE INFORMATION
(B02066)	QAG28 B26C9G15MTF8J43V116E28V85X10	-20.000	.035	.000	-12.000	SREF 4.4119 SO.FT.
(B02065)	QAG28 B26C9G15MTF8J43V116E28V85X10	-10.000	.035	.000	-12.000	LREF 19.2299 INCHES
(B02063)	QAG28 B26C9G15MTF8J43V116E28V85X10	.000	.035	.000	-12.000	BREF 37.9359 INCHES
(B02064)	QAG28 B26C9G15MTF8J43V116E28V85X10	15.000	.035	.000	-12.000	VMRP 43.5974 INCHES
						ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

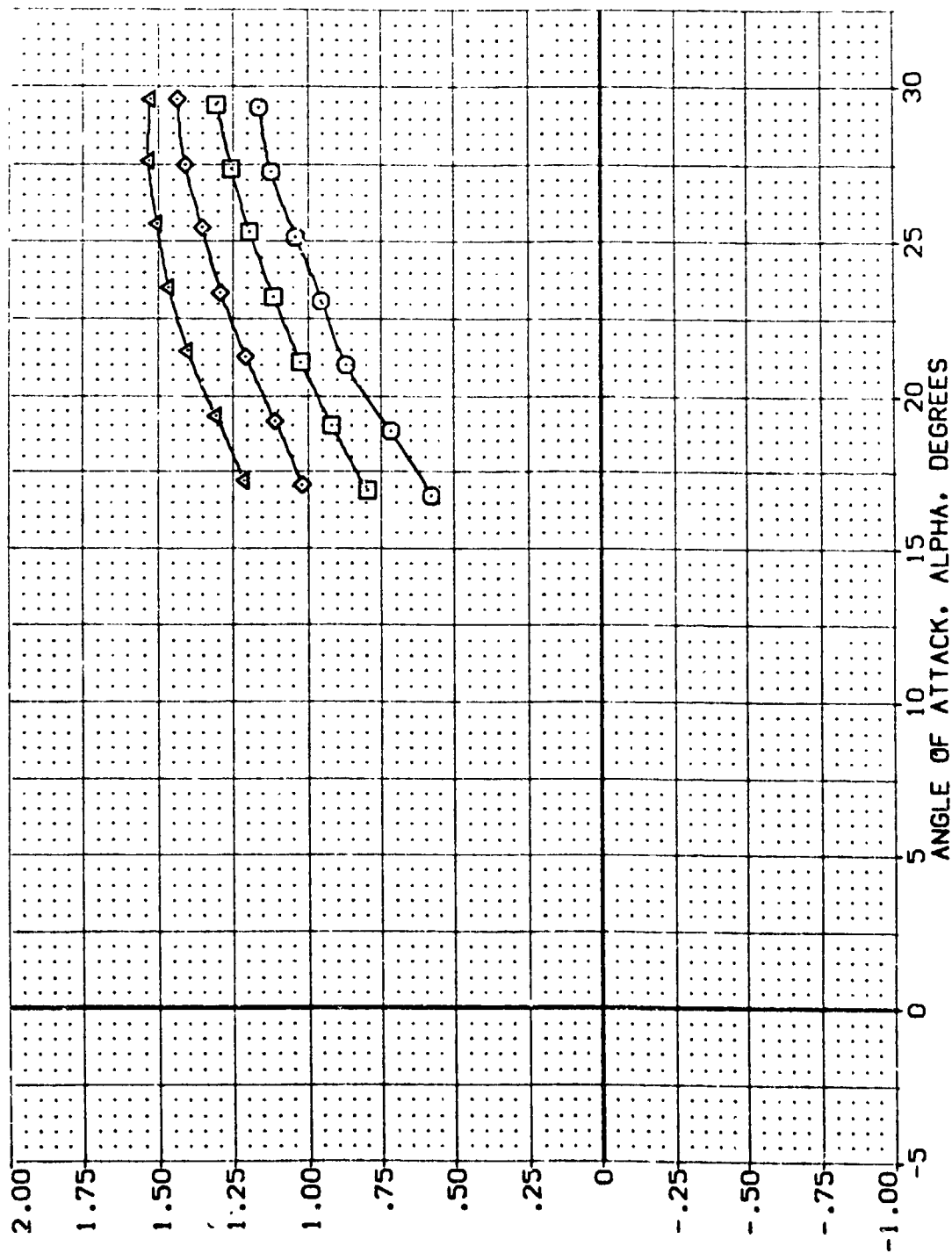
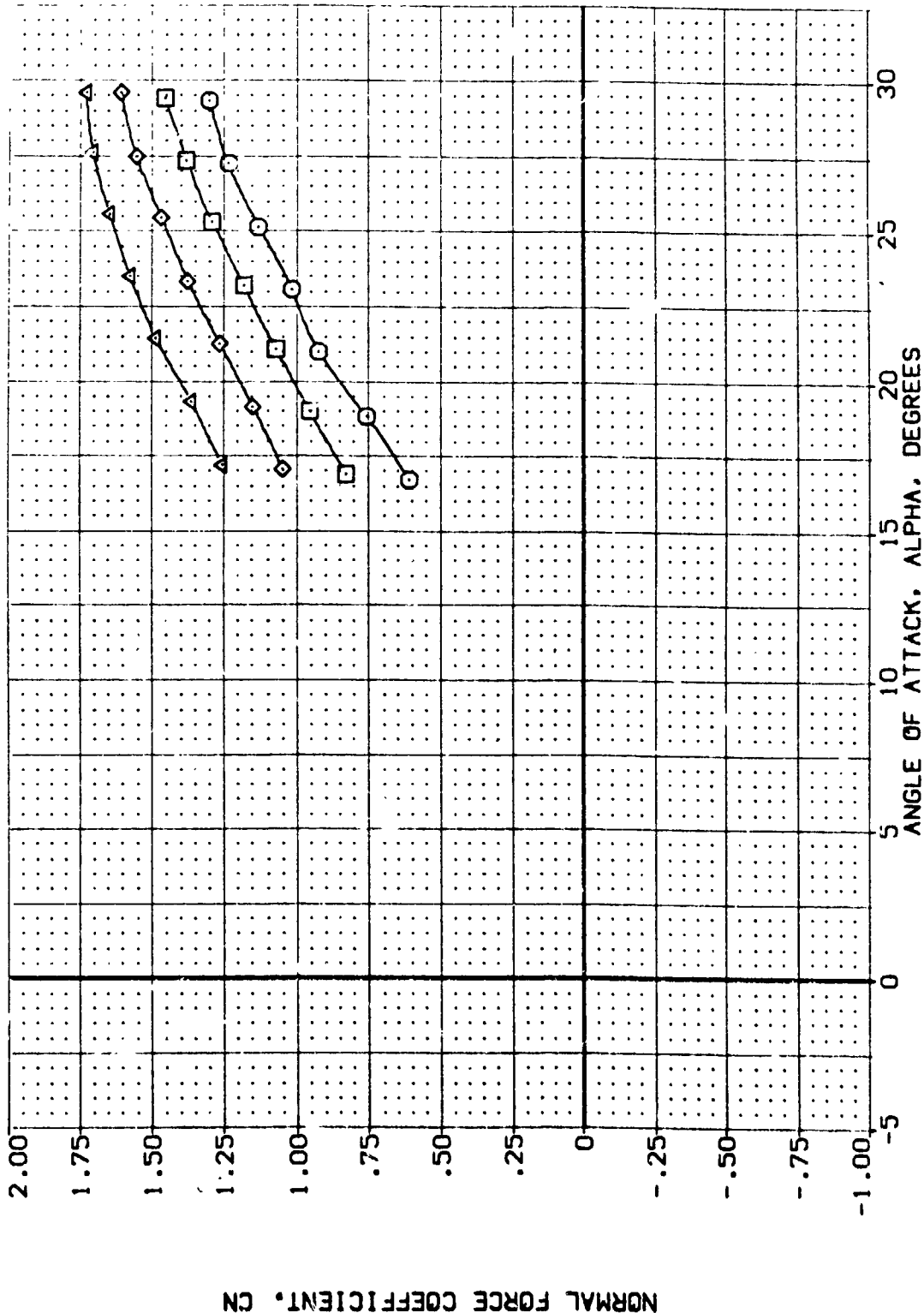


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.035

(A) MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRBK	BOFLAP	REFERENCE INFORMATION
(B02066)	QAS28 B26C9G1 SMT78J43V116E28V8RSX10	-20.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B02065)	QAS28 B26C9G1 SMT78J43V116E28V8RSX10	-10.000	.035	.000	-12.000	LREF 19.2289 INCHES
(B02063)	QAS28 B26C9G1 SMT78J43V116E28V8RSX10	.000	.035	.000	-12.000	PREF 37.9359 INCHES
(B02064)	QAS28 B26C9G1 SMT78J43V116E28V8RSX10	15.000	.035	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02065)	QAS28 B26C9G1SM7F8J43V116E28V8RSX10	-20.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B02065)	QAS28 B26C9G1SM7F8J43V116E28V8RSX10	-10.000	.035	.000	-12.000	LREF 19.2298 INCHES
(B02063)	QAS28 B26C9G1SM7F8J43V116E28V8RSX10	-10.000	.035	.000	-12.000	BREF 37.9359 INCHES
(B02054)	QAS28 B26C9G1SM7F8J43V116E28V8RSX10	15.000	.035	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

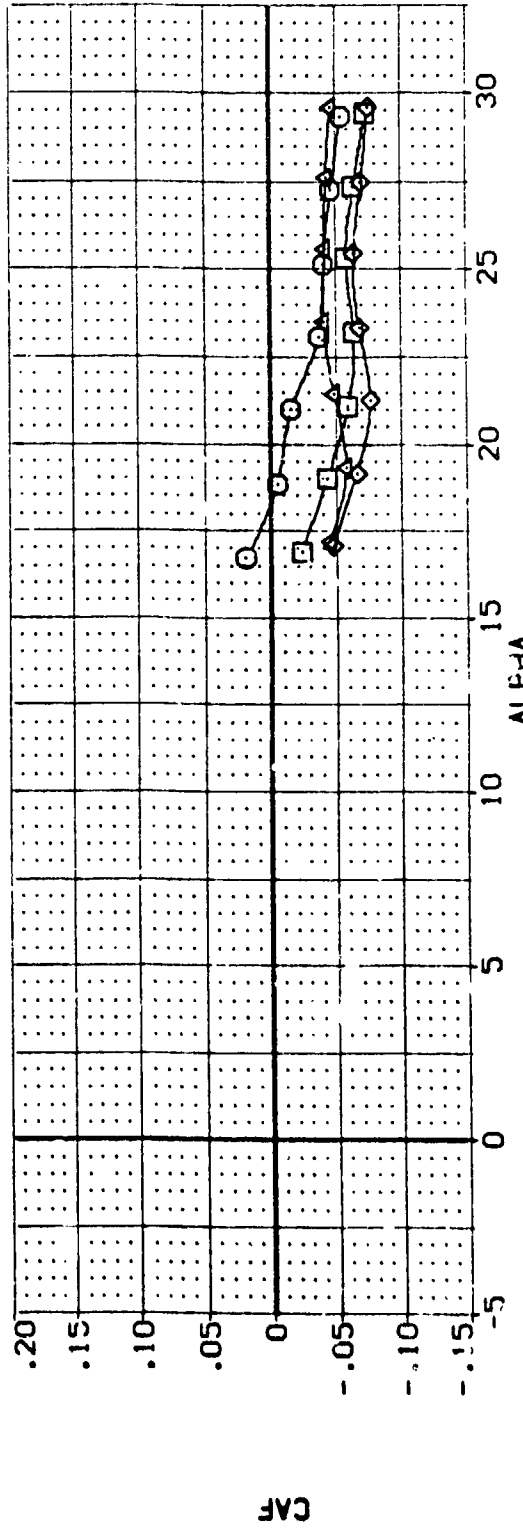
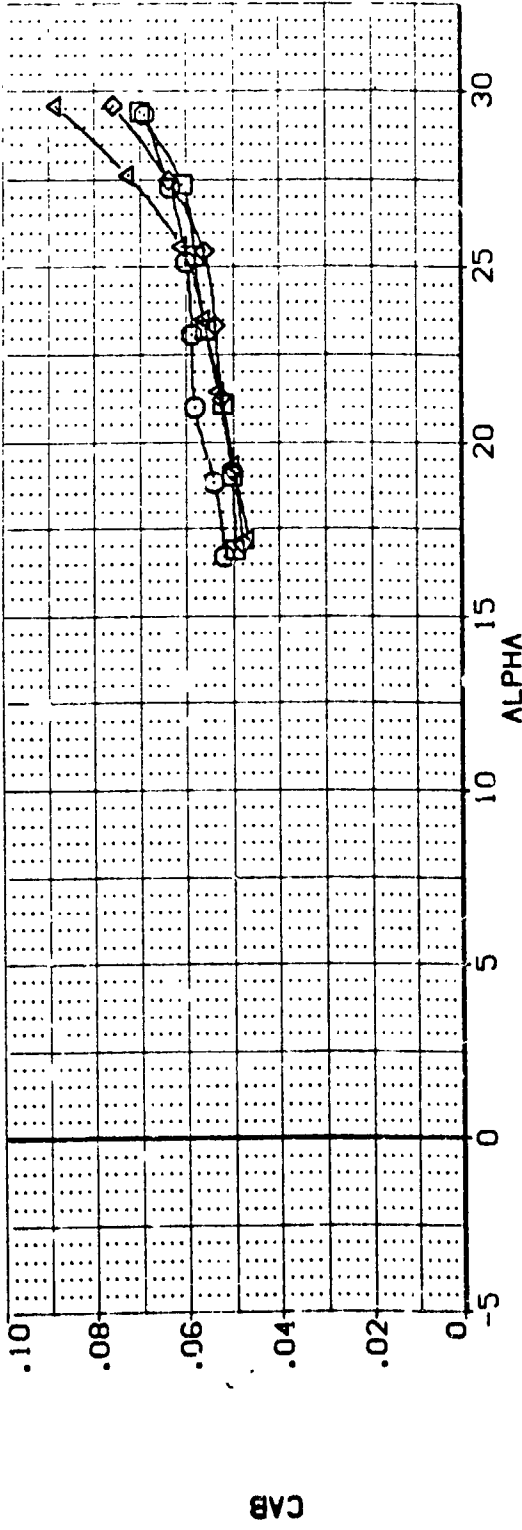
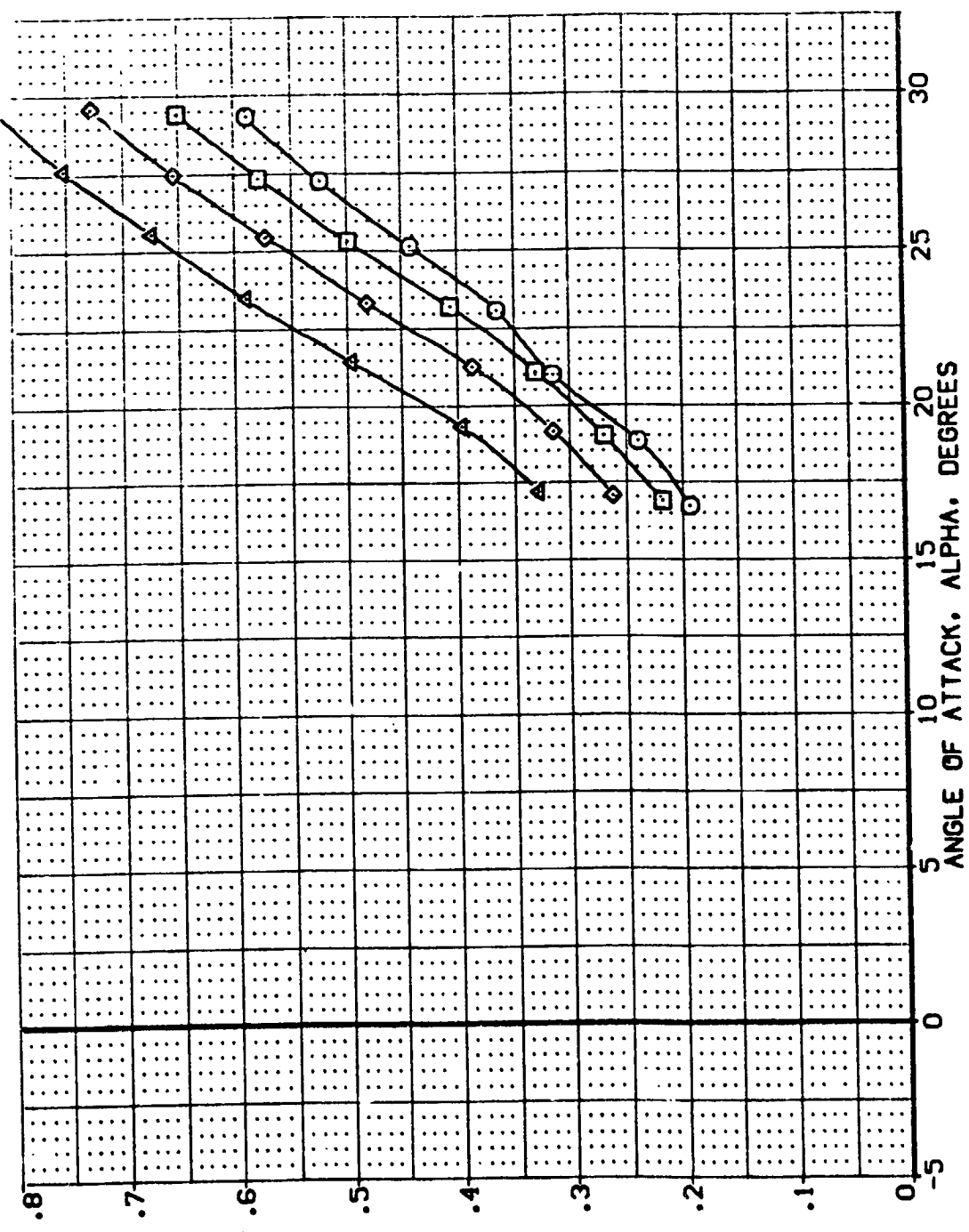


FIG 12 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.035  
 (A)MACH = .20

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	H/BW	SPDRK	BD/LAP	REFERENCE INFORMATION
(802066)	04628 826C9G1547F8J43W116E28V85X10	-20.000	.035	.000	-12.000	SREF 4.4119 SO.FT.
(802065)	04628 826C9G1547F8J43W116E28V85X10	-10.000	.035	.000	-12.000	LREF 19.2299 INCHES
(802063)	04628 826C9G1547F8J43W116E28V85X10	15.000	.035	.000	-12.000	BREF 37.9359 INCHES
(802064)	04628 826C9G1547F8J43W116E28V85X10					XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405



FOREBODY DRAG COEFFICIENT, CDF

FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802065)	0A628 B26C9G 5H7F 8J43W 16E28V8F5X10	-20.000	.035	.000	-12.000	SREF 4.4119 SO.FT.
(802065)	0A628 B26C9G 5H7F 8J43W 16E28V8F5X10	-10.000	.035	.000	-12.000	LREF 19.2299 INCHES
(802065)	0A628 B26C9G 5H7F 8J43W 16E28V8F5X10	.000	.035	.000	-12.000	BREF 37.9359 INCHES
(802064)	0A628 B26C9G 5H7F 8J43W 16E28V8F5X10	15.000	.035	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

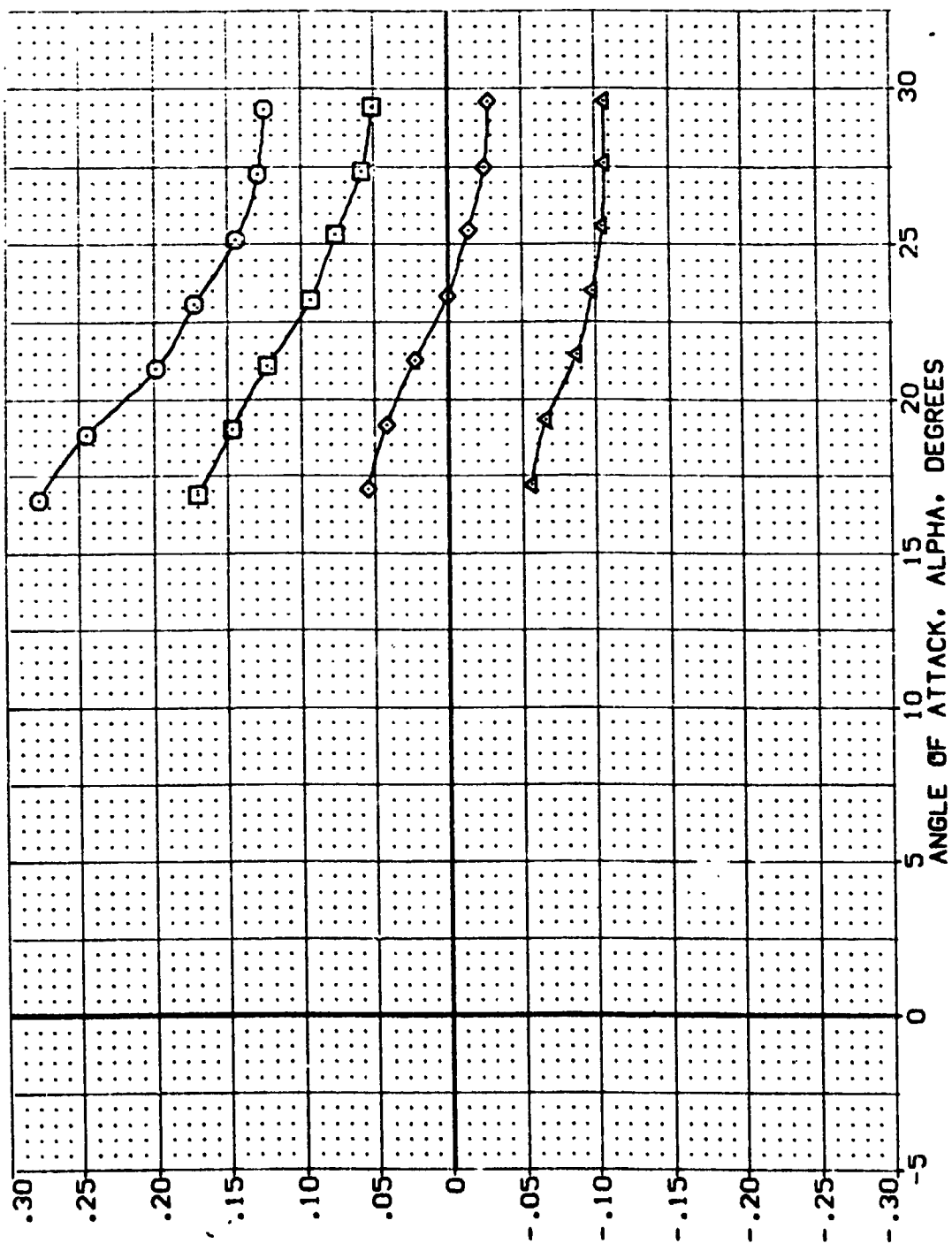


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORRK	BOFLAP	REFERENCE INFORMATION
(B0Z065)	0A5Z8 B26C9G1547F8J43V116E28V8RSX10	-20.000	.035	.000	-12.000	SREF 4.4119 50. FT
(B0Z065)	0A5Z8 B26C9G1547F8J43V116E28V8RSX10	-10.000	.035	.000	-12.000	LREF 19.2299 INCHES
(B0Z063)	0A5Z8 B26C9G1547F8J43V116E28V8RSX10	.000	.035	.000	-12.000	BREF 37.9359 INCHES
(B0Z064)	0A5Z8 B26C9G1547F8J43V116E28V8RSX10	15.000	.035	.000	-12.000	XRRP 43.5974 INCHES
						YRRP .0000 INCHES
						ZRRP 15.1875 INCHES
						SCALE .0405

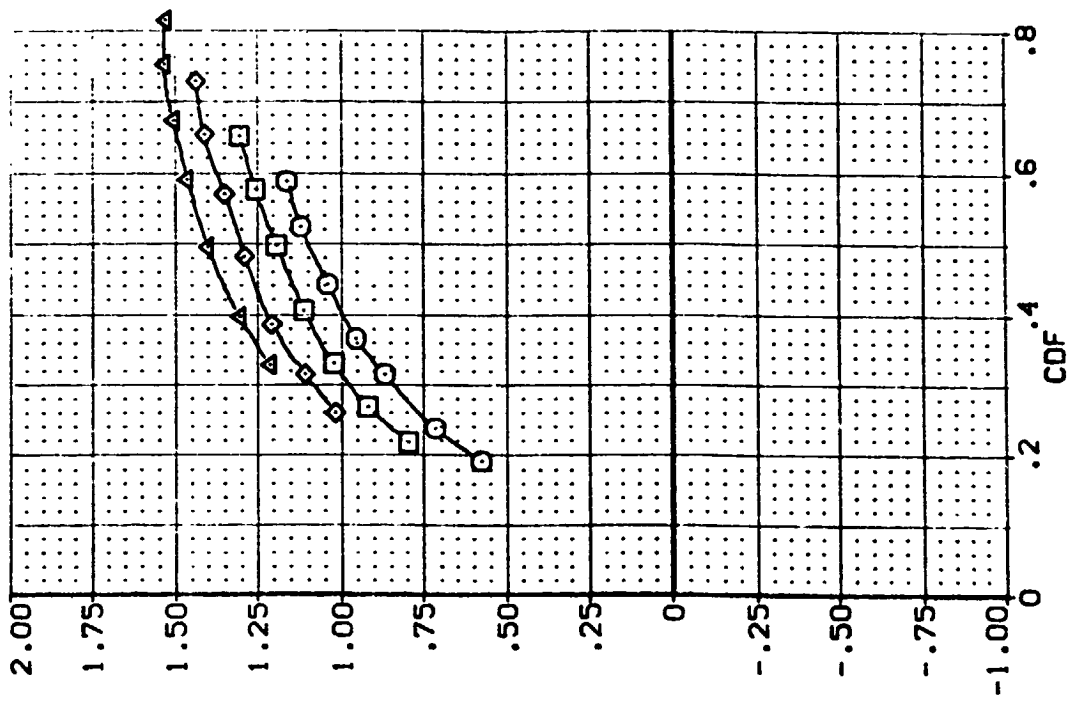
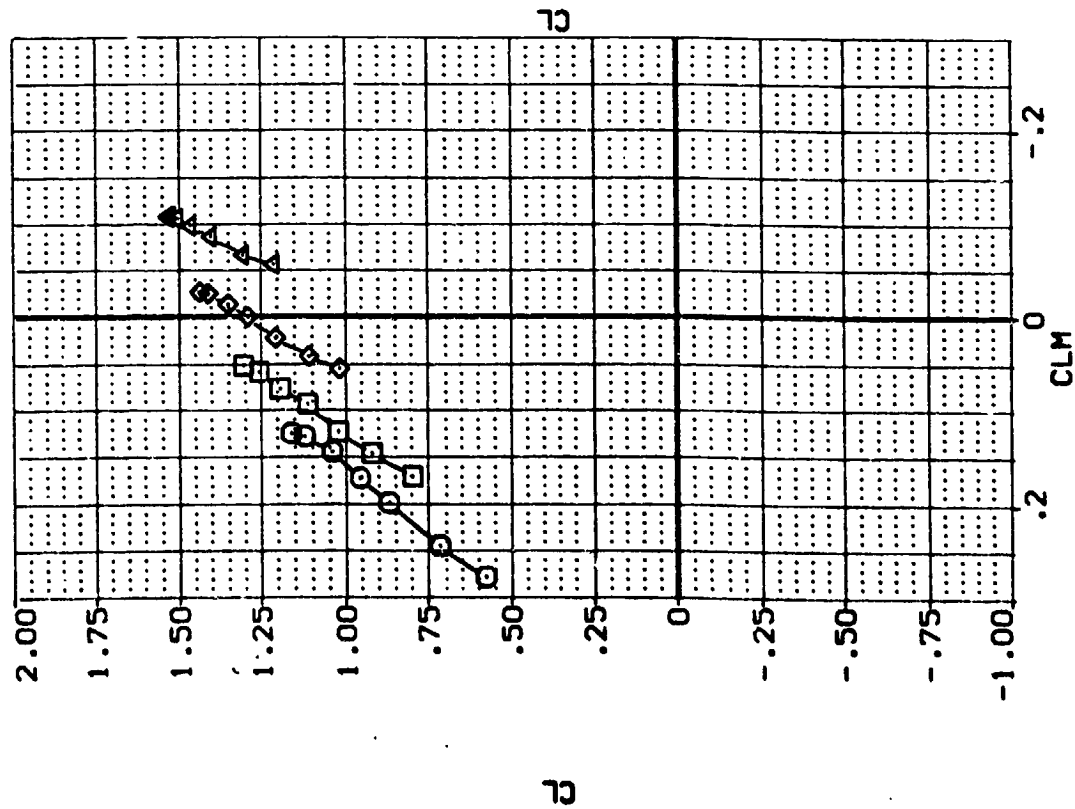


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.035

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORRY	BOFLAP	REFERENCE INFORMATION
(B02066)	WAG28 B26C9G 5H7F8J43V 16E28VBR5X10	-20.000	.035	.000	-12.000	SREF 4.4119 50. FT
(B02065)	DAG28 B26C9G 5H7F8J43V 16E28VBR5X10	-10.000	.035	.000	-12.000	LREF 19.2299 INCHES
(B02063)	DAG28 B26C9G 5H7F8J43V 16E28VBR5X10	.000	.035	.000	-12.000	BREF 37.9359 INCHES
(B02064)	DAG28 B26C9G 5H7F8J43V 16E28VBR5X10	15.000	.035	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

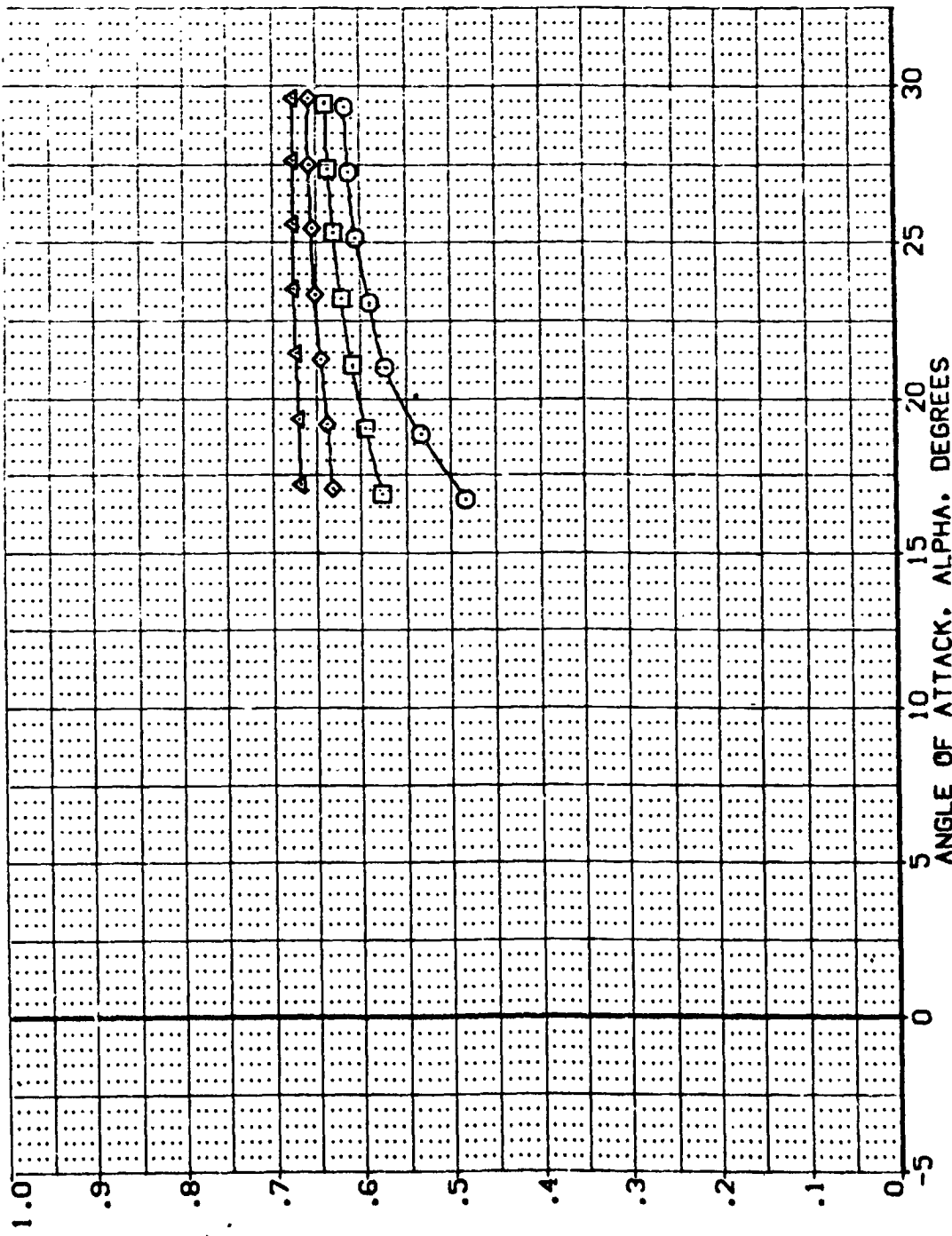


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.035  
 (A)MACH = .20

DATA SET SYMBL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02055)	0A628 B26C5G1547F8J43V116E28V8RSX10	-20.000	.035	.000	-12.000	SREF 4.4119 SO.FT.
(B02055)	0A628 B26C5G1547F8J43V116E28V8RSX10	-10.000	.035	.000	-12.000	LREF 19.2299 INCHES
(B02053)	0A628 B26C5G1547F8J43V116E28V8RSX10	.000	.035	.000	-12.000	BREF 37.9359 INCHES
(B02064)	0A628 B26C5G1547F8J43V116E28V8RSX10	15.000	.035	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

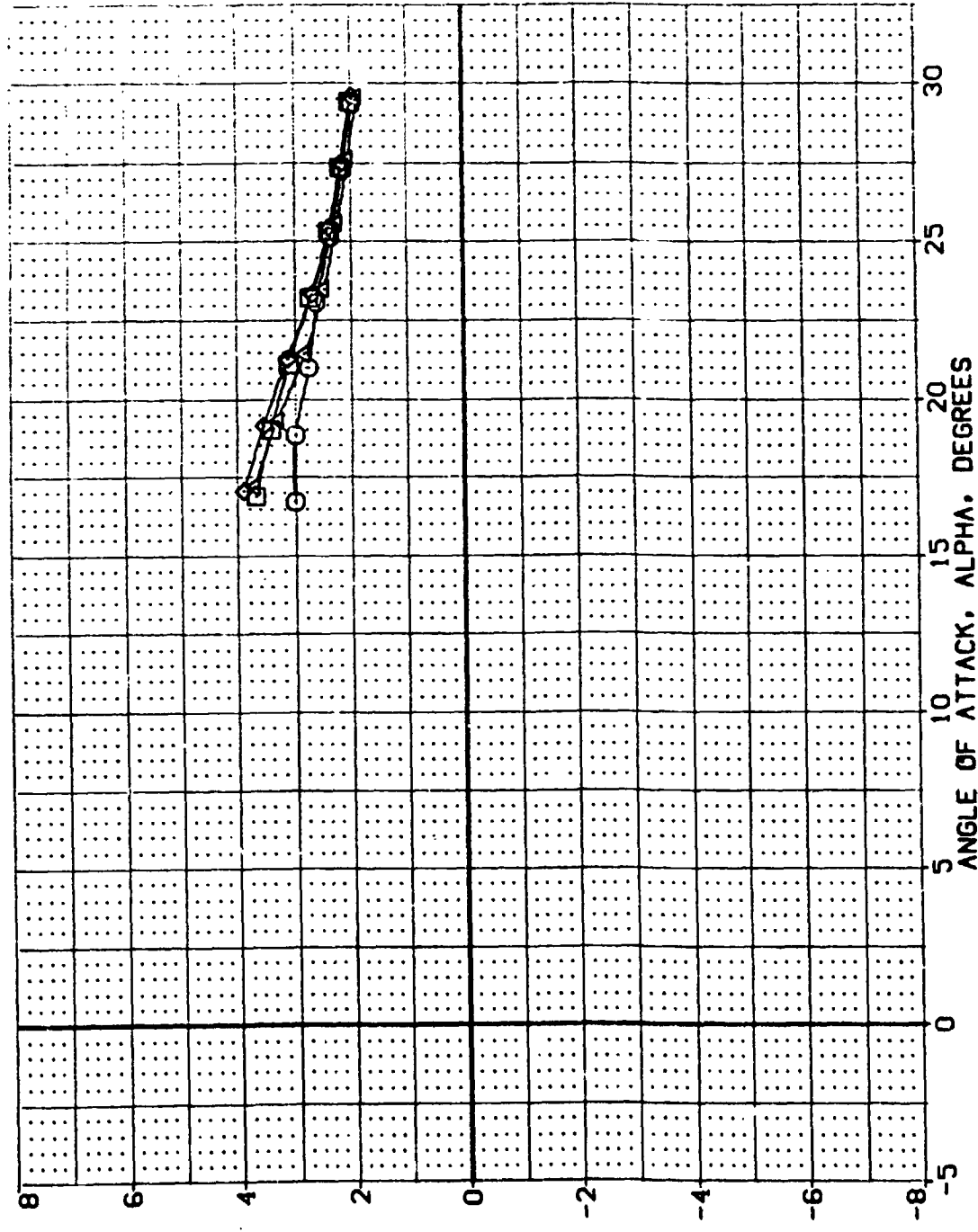


FIG 12 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.035

(A)MACH = .20

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ066)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	15.000	BOFLAP	.200	.000	SO.FT.
		RUDER	-12.000	.000	INCHES
		H/BW	.000	.000	INCHES
			.000	.000	INCHES
			.035	.000	INCHES
				.000	INCHES
				.000	SCALE
				.0405	

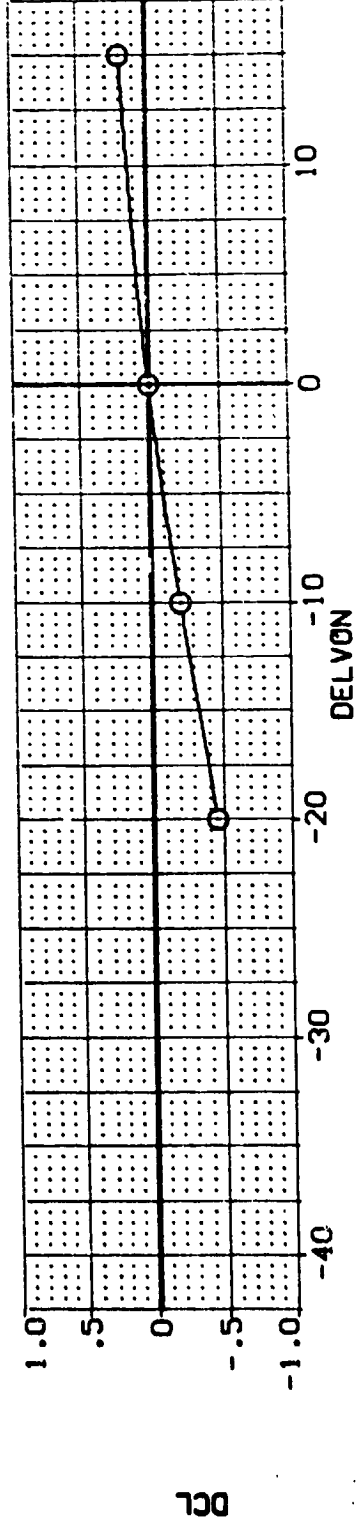
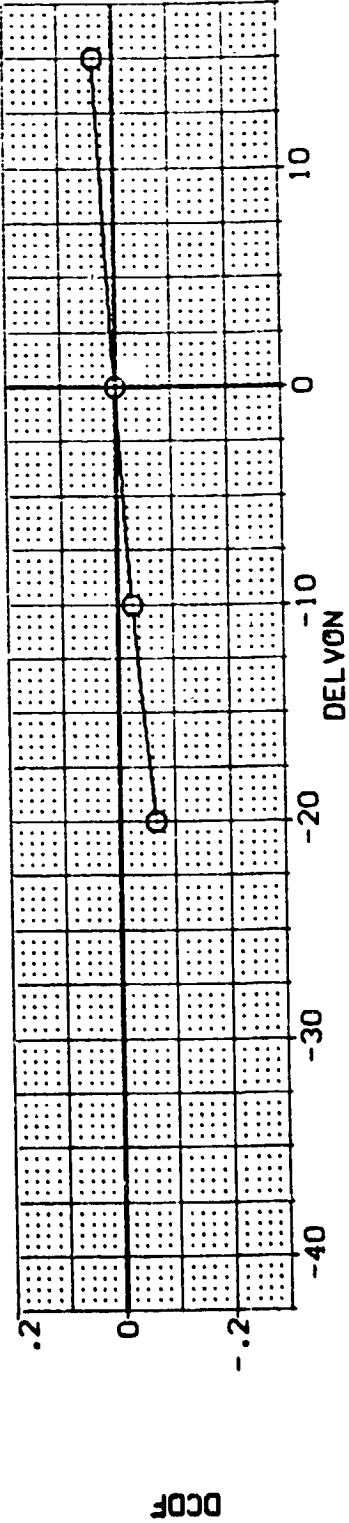
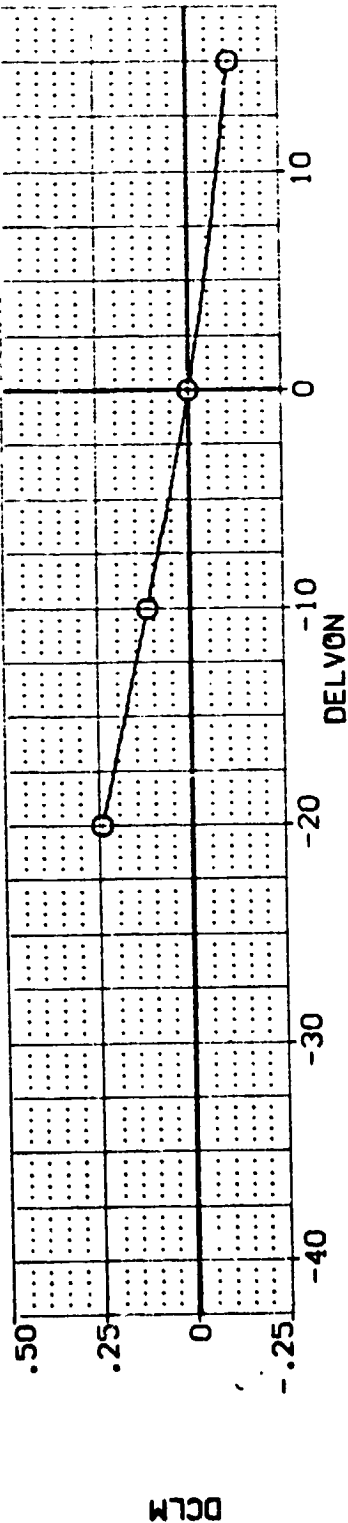


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.035

(10Z066)

0A628 B26C9G15M7F8J43W116E28V8R5X10

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	20.000		BETA	.000	4.4119
			AIRLON	.000	19.2299
			SPDRK	.000	37.9359
				.000	43.5374
				.000	15.0000
				.000	15.1875
				.000	.0405
				.000	SCALE

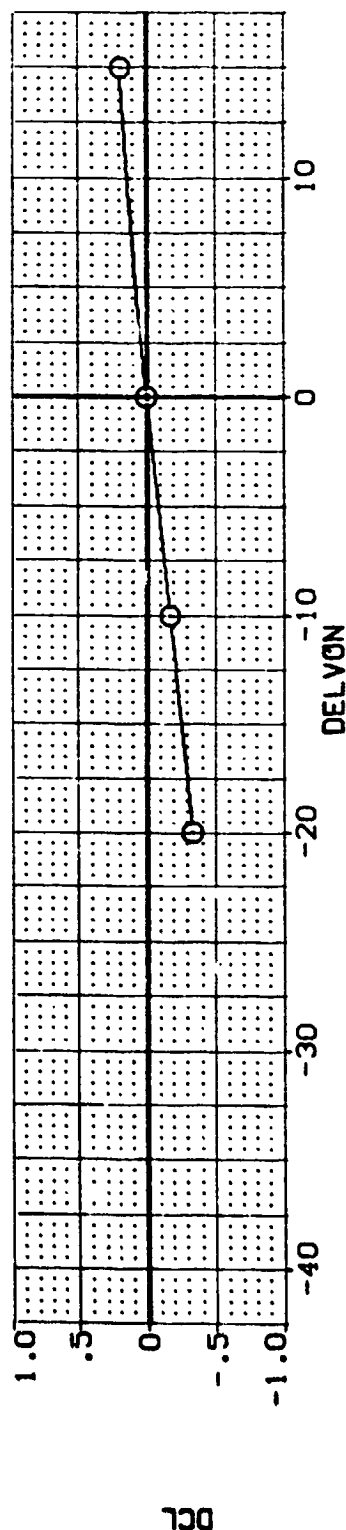
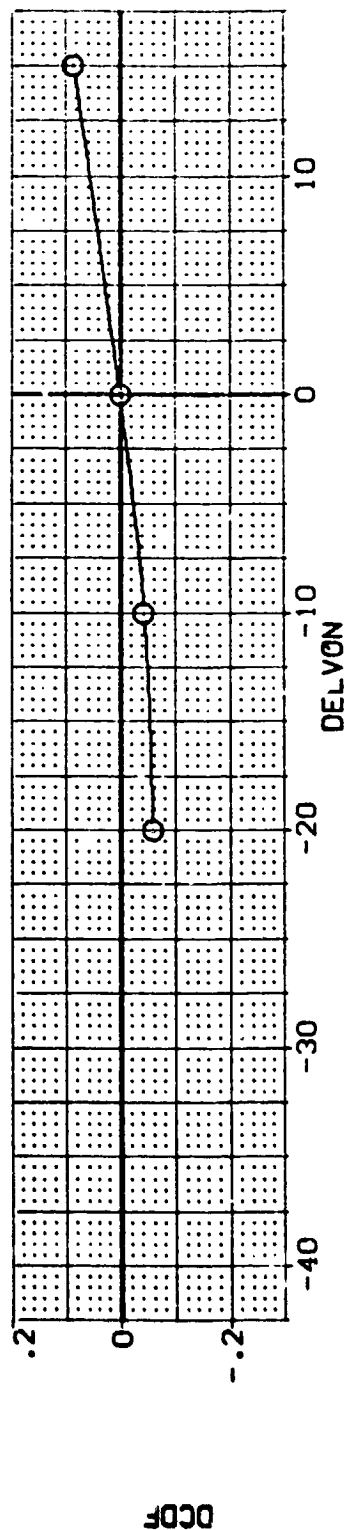
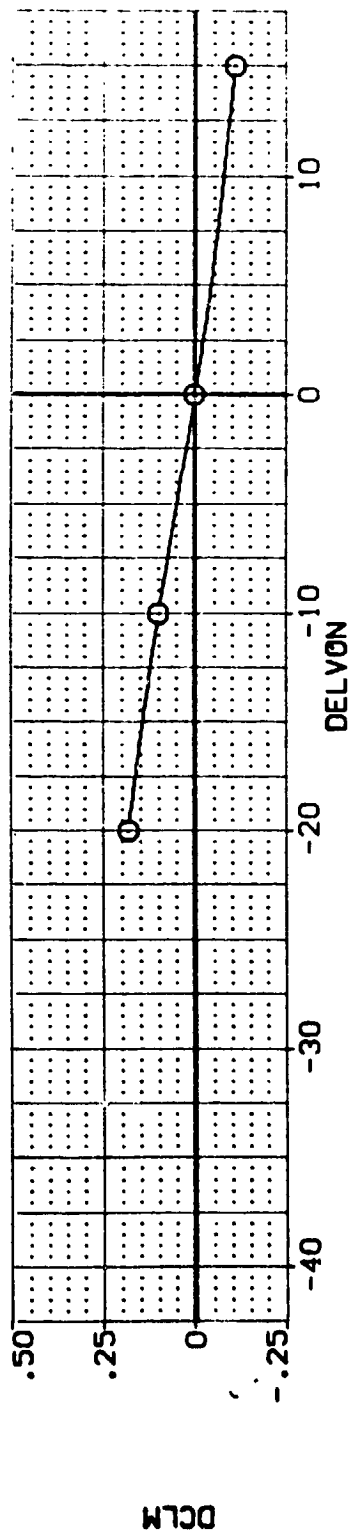


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES,  $H/BW = 0.035$



**0. Synops**

**ALPHA**  
**25.000**

PARAMETRIC VALUES	
MACH	.200
BOFLAP	-12.000
RUDDER	.000
W/BV	.035

GA62B B26C9G15M7F8J43W1 I6E28V8R5X10

(107066)

DATA SOURCE

DATASET  
 IDZ065  
 IDZ064

DEL VON	SREF
-10.000	LREF
15.000	BREF

REFERENCE INFORMATION	SO. FT.
4.4119	INCHES
19.2299	INCHES
37.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

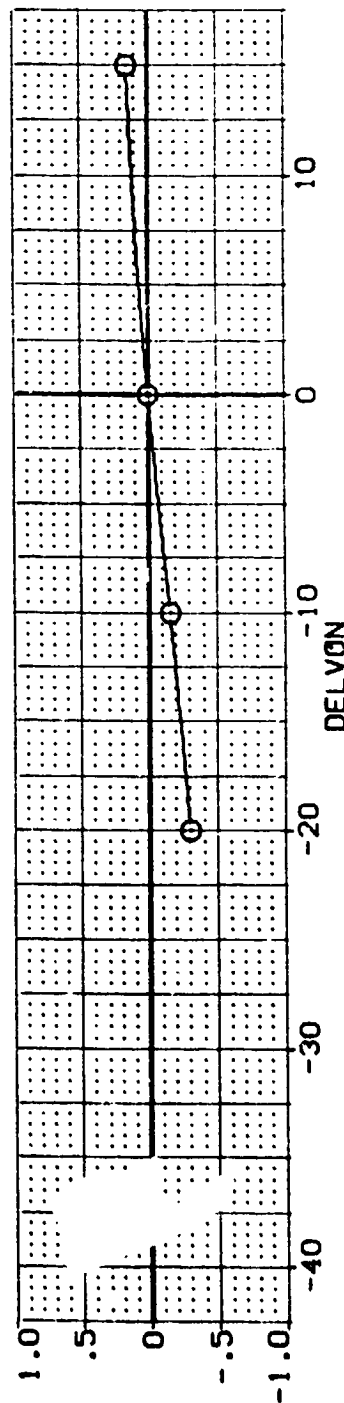
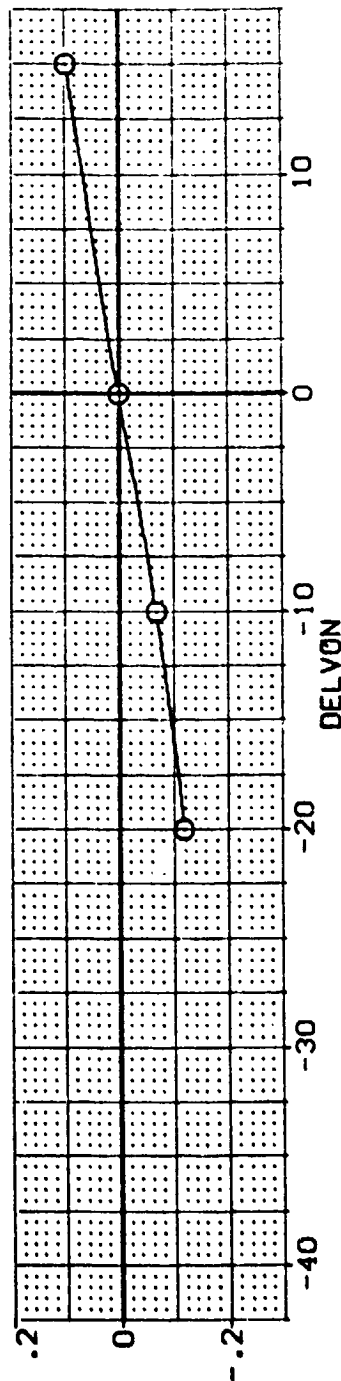
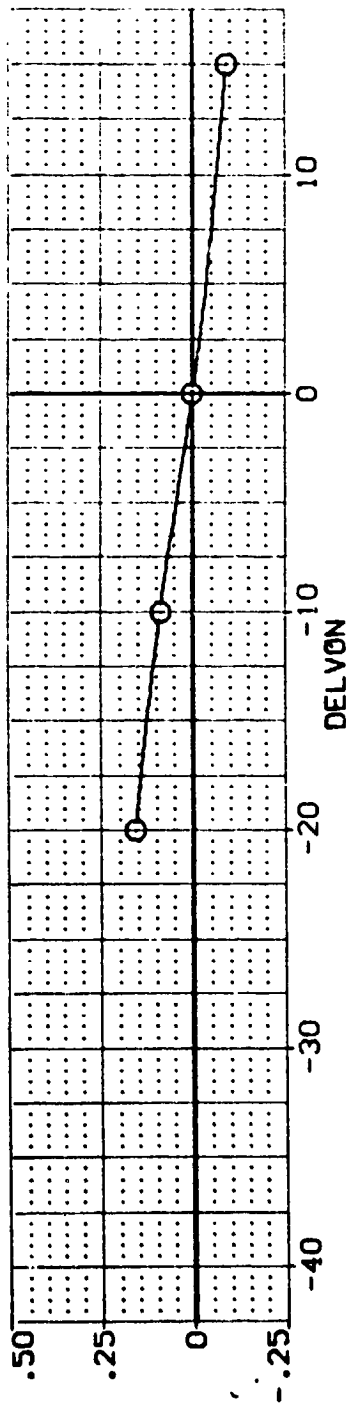
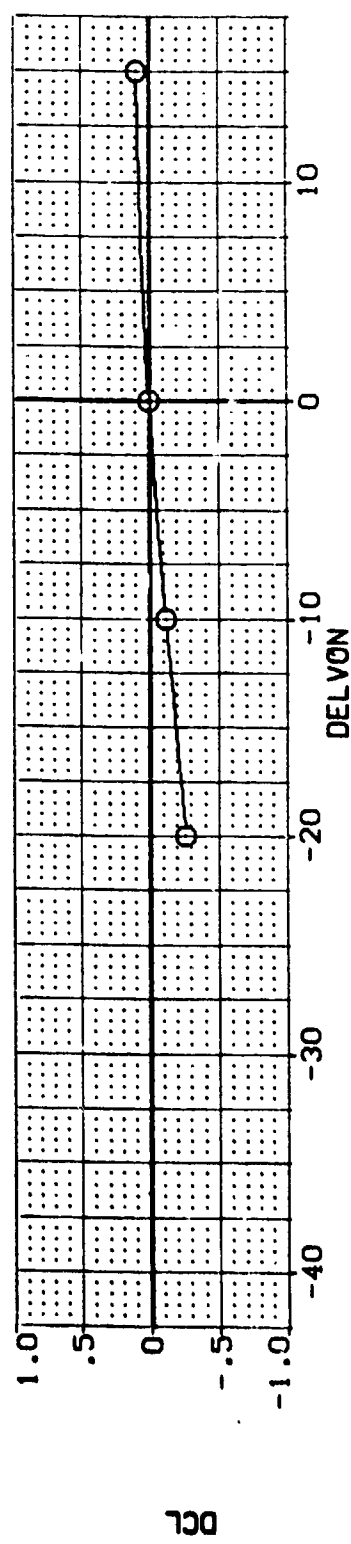
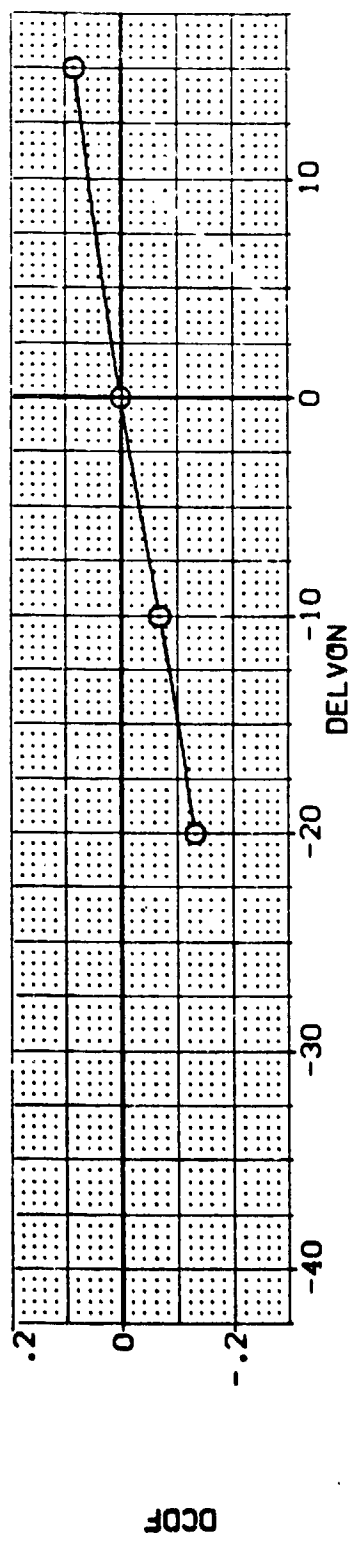
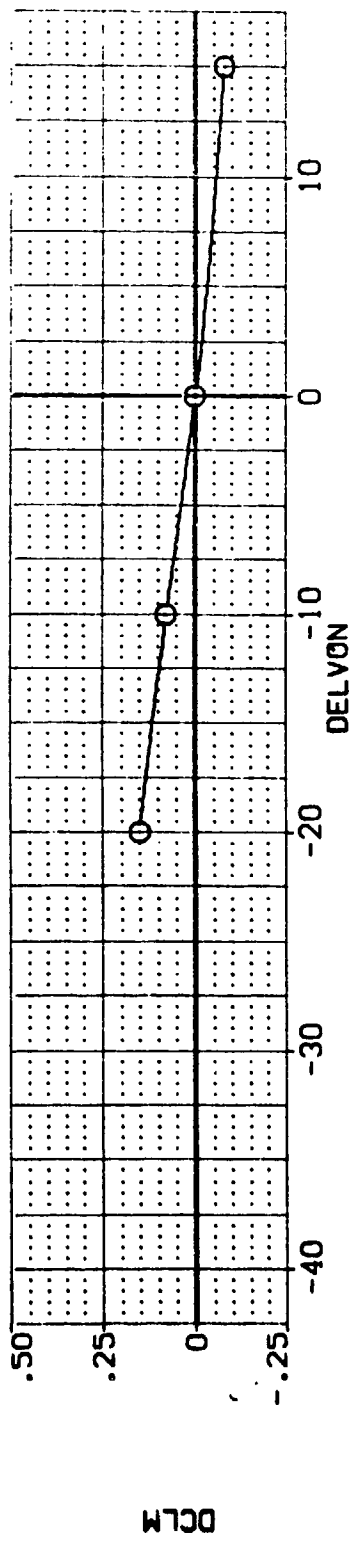


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODED ENGINES,  $H/BW = 0.035$



(90ZG1)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION	
O	30.000	MACH .200 BOFLAP -12.000 RUDDER .000 W/BV .035	BETA AILRON SPOBRK	SREF LREF BREF XMRP YMRP ZMRP SCALE	SO.FT. INCHES INCHES INCHES INCHES INCHES INCHES SCALE
			.000 .000 .000	DATASET DELON DATASET DELON DATASET DELON	4.4119 19.2299 37.9359 43.5974 .0000 15.1875 .0405
			DATASET DELON DATASET DELON DATASET DELON	10Z065 10Z065 10Z065 10Z065 10Z065 10Z065	-10.000 -10.000 15.000 15.000 15.000 15.000



**FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODED ENGINES,  $H/BW = 0.035$**

(1DZ066)

0A62B B26C9G15M7F8J43W116E28V8R5X10

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
O	15.000		BETA	.000	DATASET	DELTON	SREF	4.4119	SO.FT.
		BOFLAP	-12.000	.000	IDZ066	-20.000	LREF	19.2799	INCHES
		RUDDER	.000	.000	IDZ063	.000	BREF	37.9359	INCHES
		H/BW	.035				VMRP	43.5974	INCHES
							ZMRP	.0000	INCHES
							SCALE	15.1875	INCHES
								.0405	SCALE

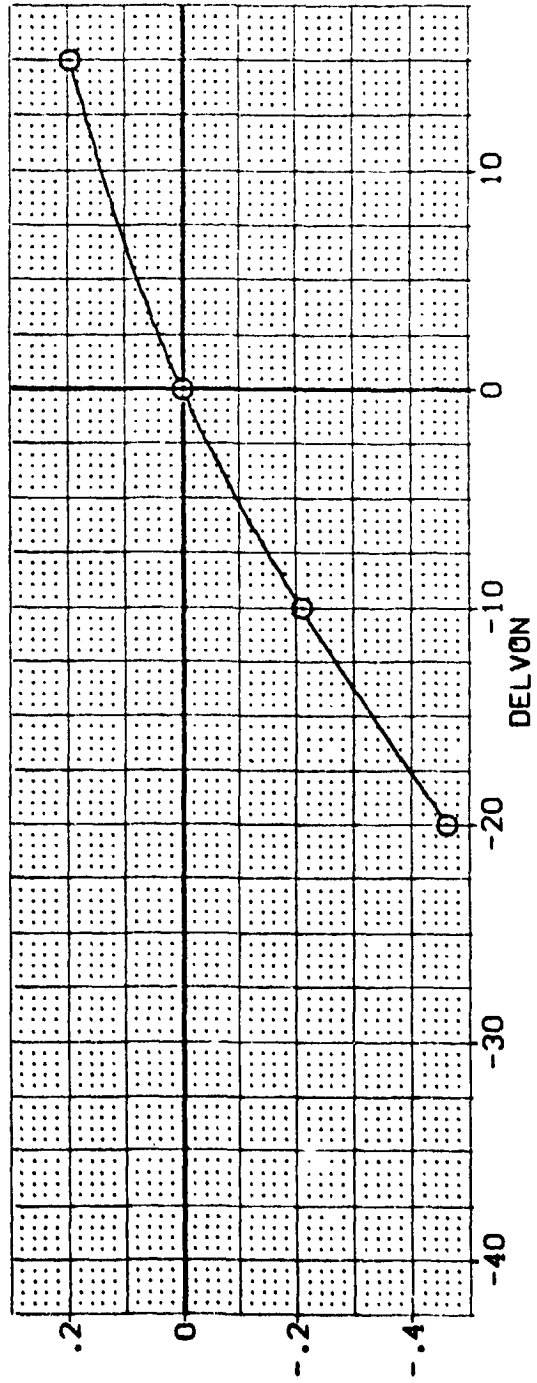
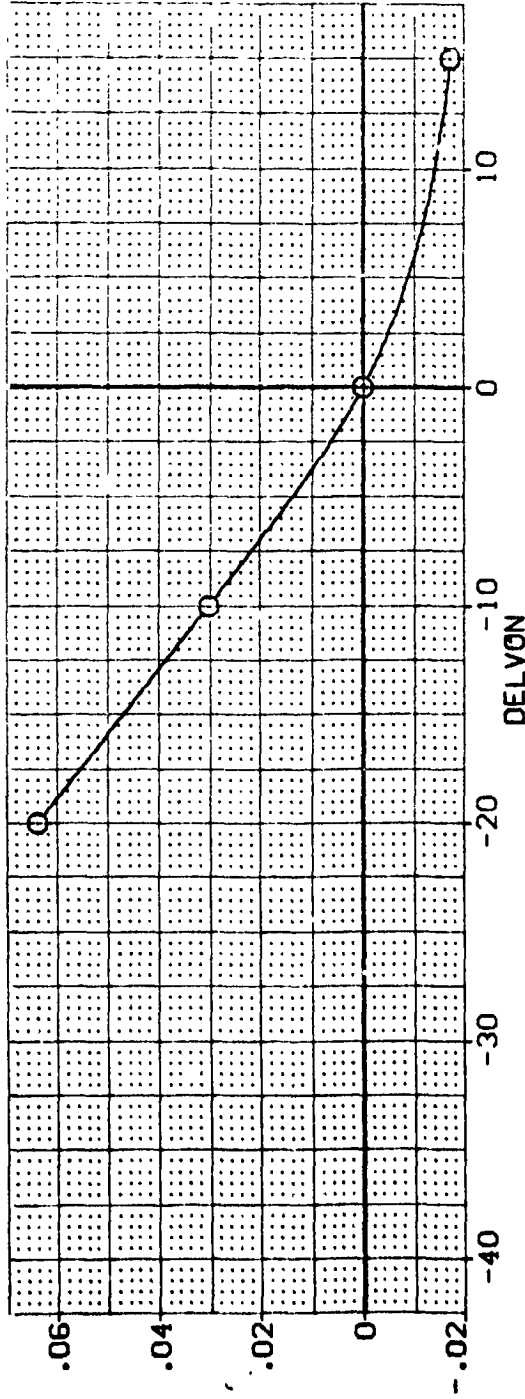


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.035

0A628 826C9G15M7F8J43W116L28V8R5X10 (1DZ066)

SYMBOL	ALPHA	MACH	BOFLAP	RUDDER	H/BW	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	20.000					BETA -12.000 AILRON .000 SPOBRK .035	.000 DATASET .000 IDZ066 .000 IDZ063	SREF 4.4119 LREF 19.2299 BREF 37.9359 XMRP 43.5974 YMRP 15.0000 ZMRP 15.1875 SCALE .0405

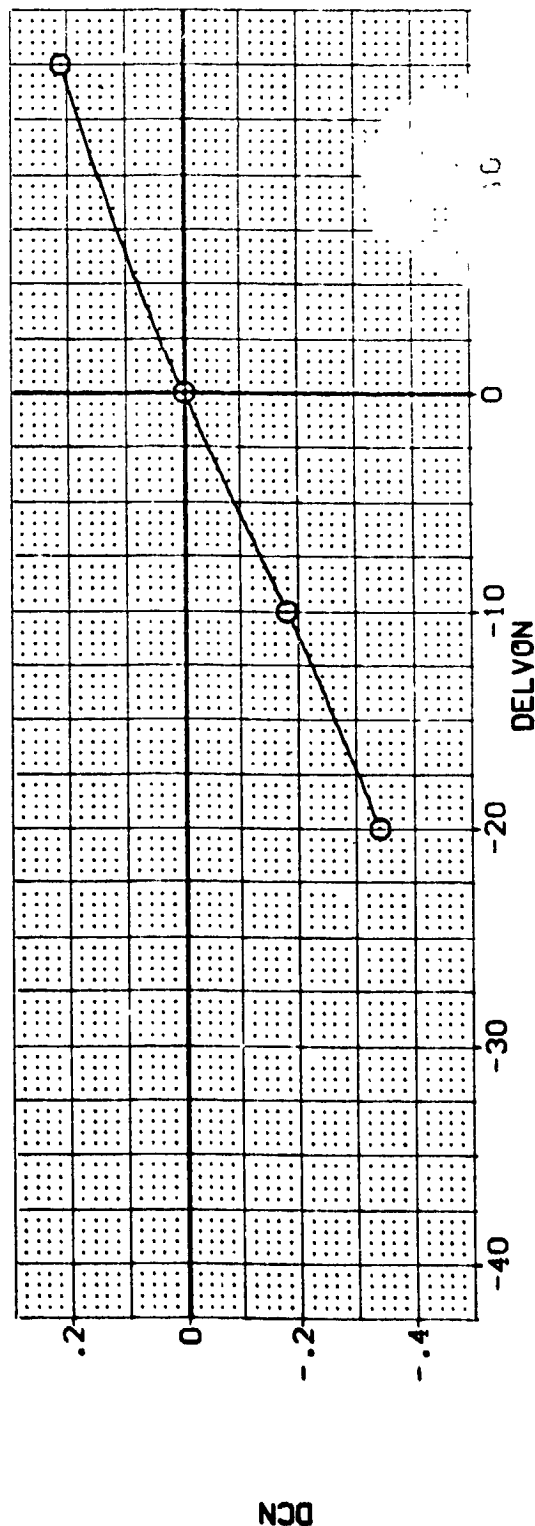
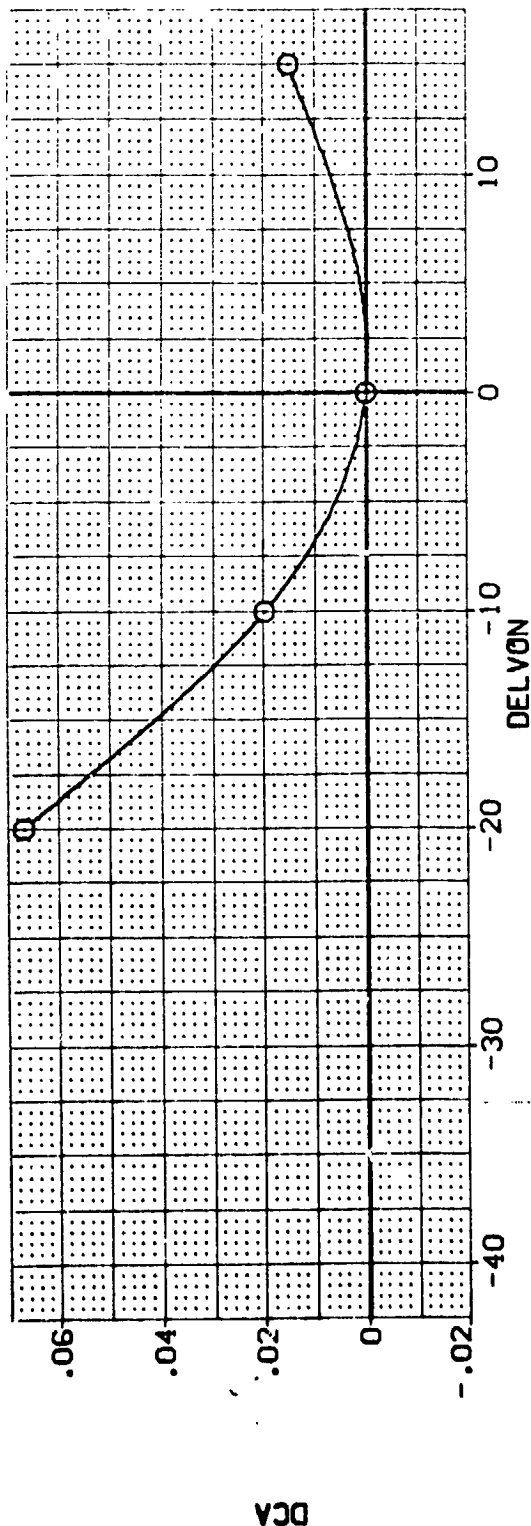


FIG 12 ELEVON EFFECTIVENESS, UNDERWING PADDED ENGINES, H/BW = 0.035



(107066)

0A62B B26C9G15M7F8J43W116E28V8R5X10

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	30.000	80FLAP	.200 BETA	.000 DATASET	SREF
		RUDDER	-12.000 ALLRON	.000 10Z066	LREF
		H/BW	.000 SPOBRK	.000 10Z064	BREF
			.035	.000	XMRP
				.000	YMRP
				.000	ZMRP
				.0405	SCALE
					SO. FT.
					INCHES
					INCHES
					INCHES
					INCHES
					INCHES

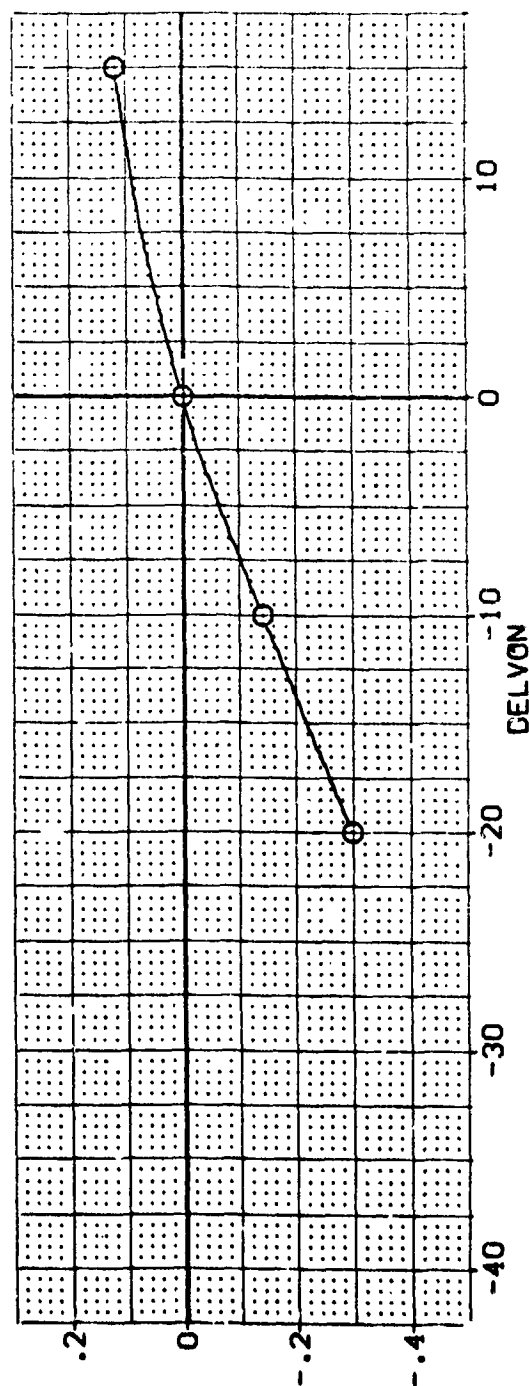
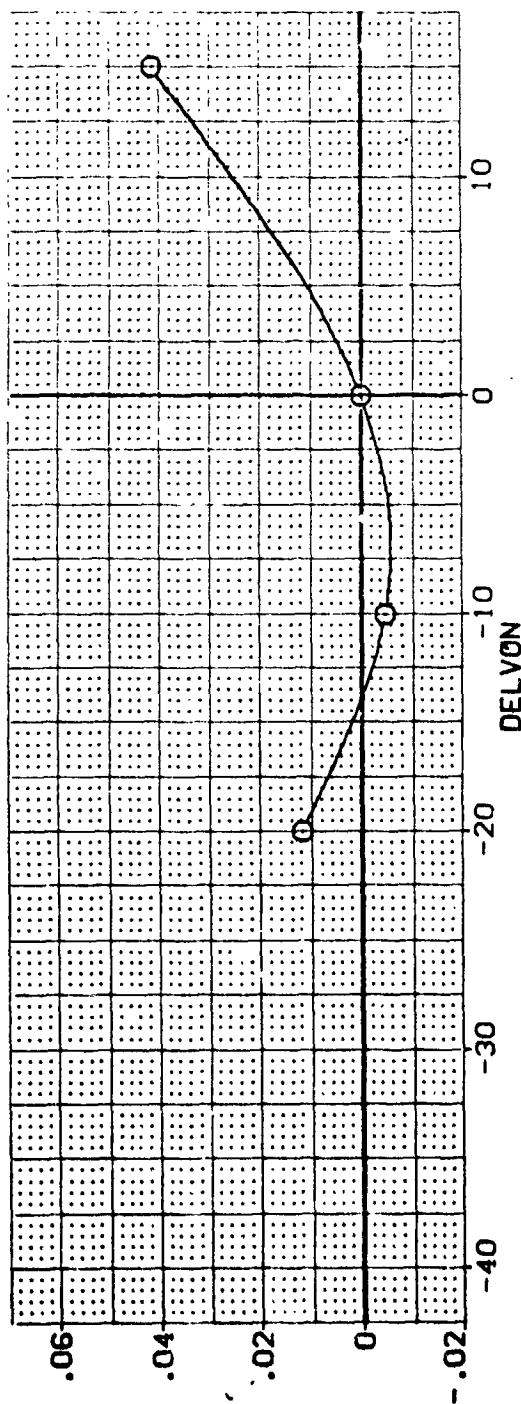


FIG 12 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.035

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802057) 04628 B26C9G1547F8J43V116E28V8RSX10  
 (802058) 04628 B26C9G1547F8J43V116E28V8RSX10  
 (802070) 04628 B26C9G1547F8J43V116E28V8RSX10  
 (802069) 04628 B26C9G1547F8J43V116E28V8RSX10

ELEVON H/BW SPOBRK BOFLAP REFERENCE INFORMATION  
 -20.000 .125 .000 -12.000 SREF 4.4119 SQ.FT.  
 -10.000 .125 .000 -12.000 LREF 19.2299 INCHES  
 .000 .125 .000 -12.000 BREF 37.9359 INCHES  
 15.000 .125 .000 -12.000 XMRP 43.5574 INCHES  
 .000 .000 .000 .000 YMRP .0000 INCHES  
 15.1875 INCHES  
 SCALE .0405

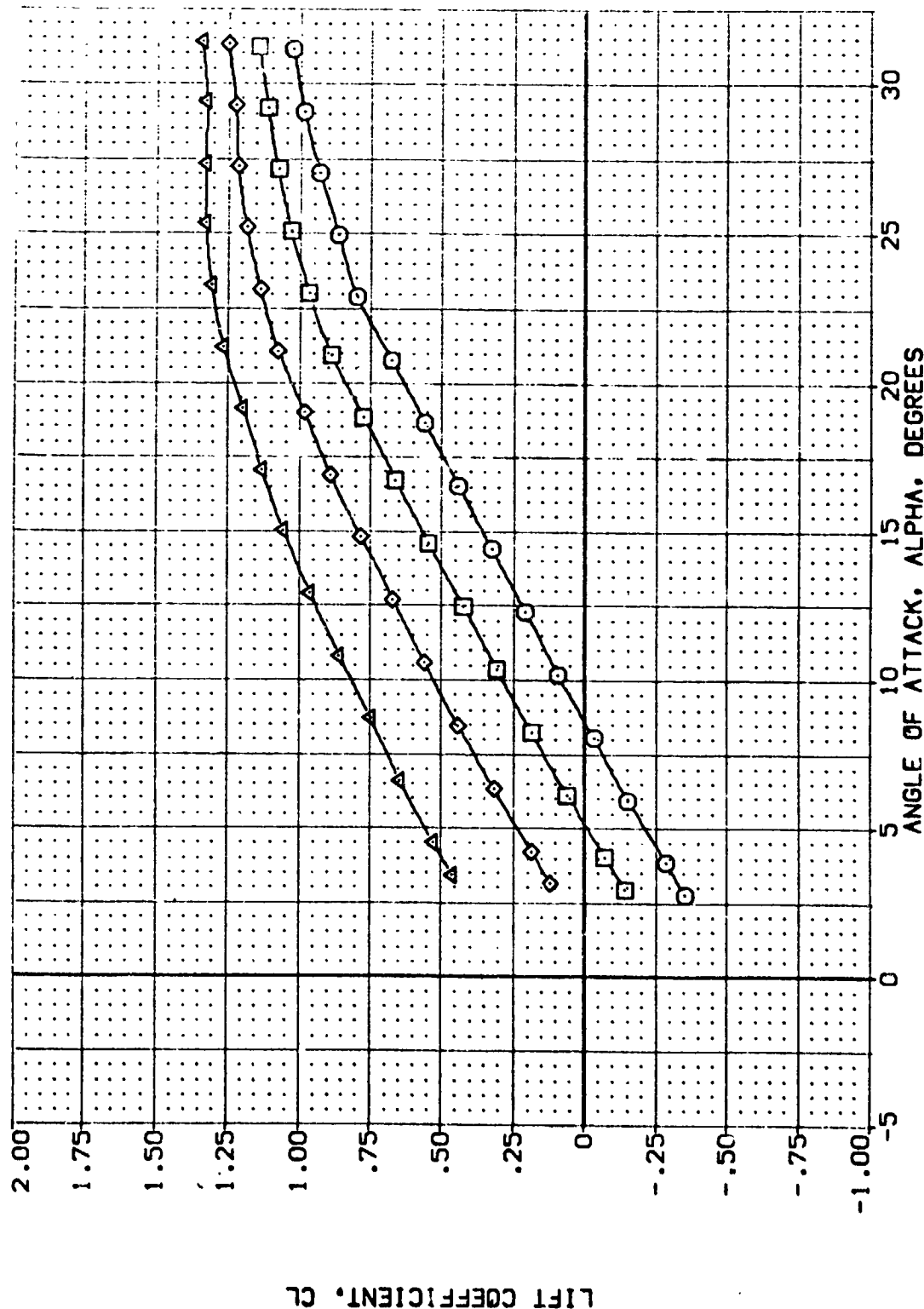


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PADDED ENGINES, H/BW = 0.125

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORR	BOFLAP	REFERENCE INFORMATION
(B02067)	QAS28 B26C9G1S47F8J43V116E28V8RSX10	-20.000	.125	.000	-12.000	SREF 4.4119 SO.FT.
(B02068)	QAS28 B26C9G1S47F8J43V116E28V8RSX10	-10.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02070)	QAS28 B26C9G1S47F8J43V116E28V8RSX10	.000	.125	.000	-12.000	BREF 37.9359 INCHES
(B02069)	QAS28 B26C9G1S47F8J43V116E28V8RSX10	15.000	.125	.000	-12.000	XMRP 43.5574 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0105

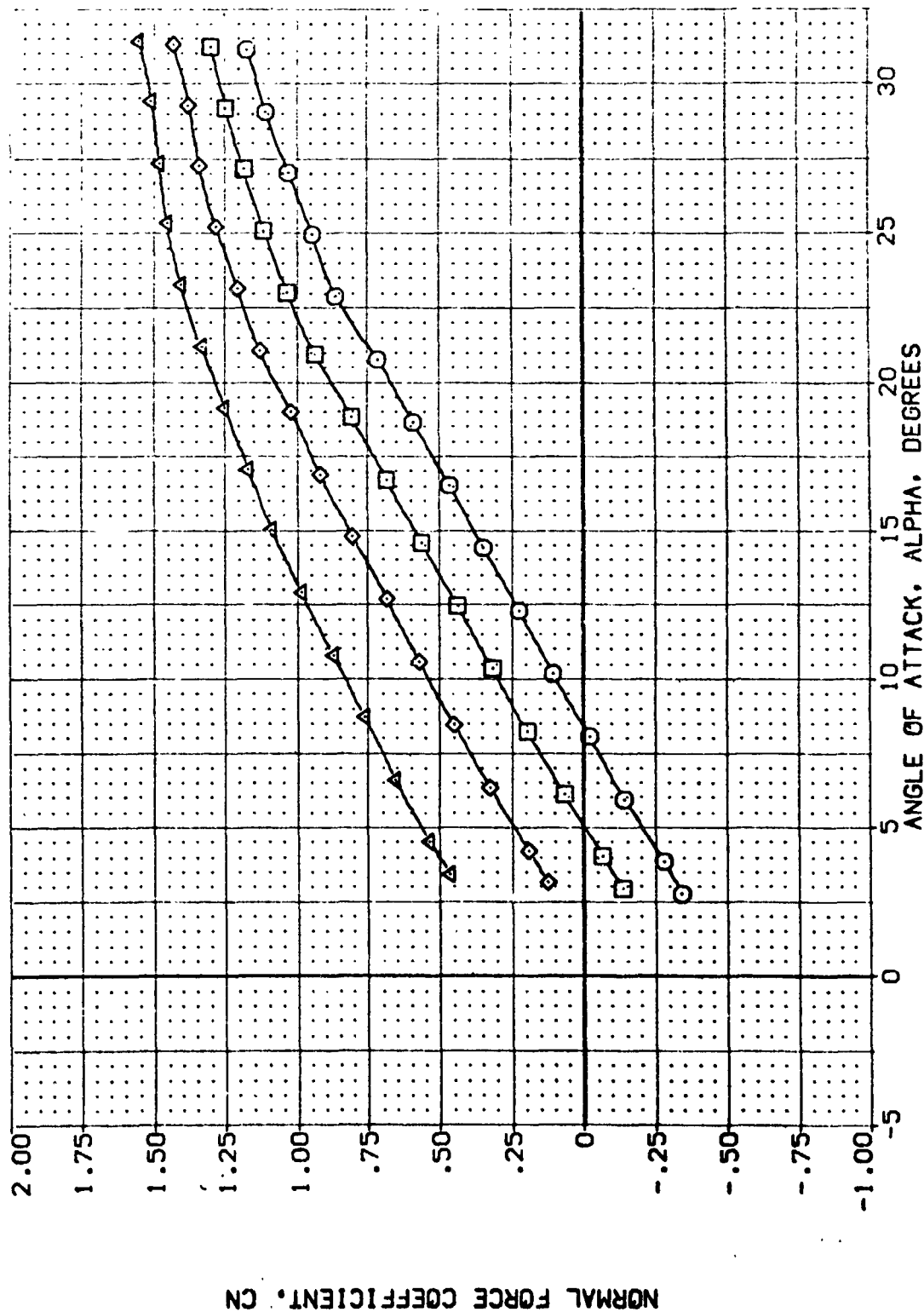


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORRK	BDFLAP	REFERENCE INFORMATION
(B02067)	0A628 B26C9G15M7F8J43V116E28V8R5X10	-20.000	.125	.000	-12.000	SREF 4.4119 SO.FT.
(B02068)	0A628 B26C9G15M7F8J43V116E28V8R5X10	-10.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02070)	0A628 B26C9G15M7F8J43V116E28V8R5X10	.000	.125	.000	-12.000	BREF 37.9359 INCHES
(B02069)	0A628 B26C9G15M7F8J43V116E28V8R5X10	15.000	.125	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

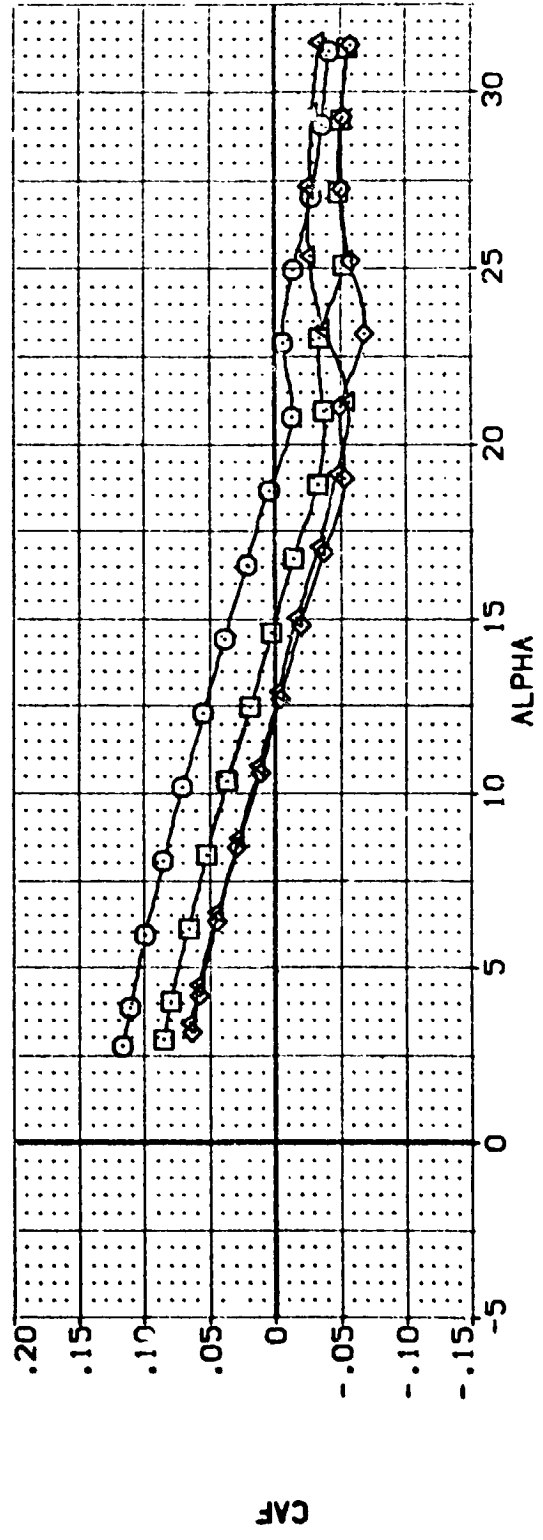
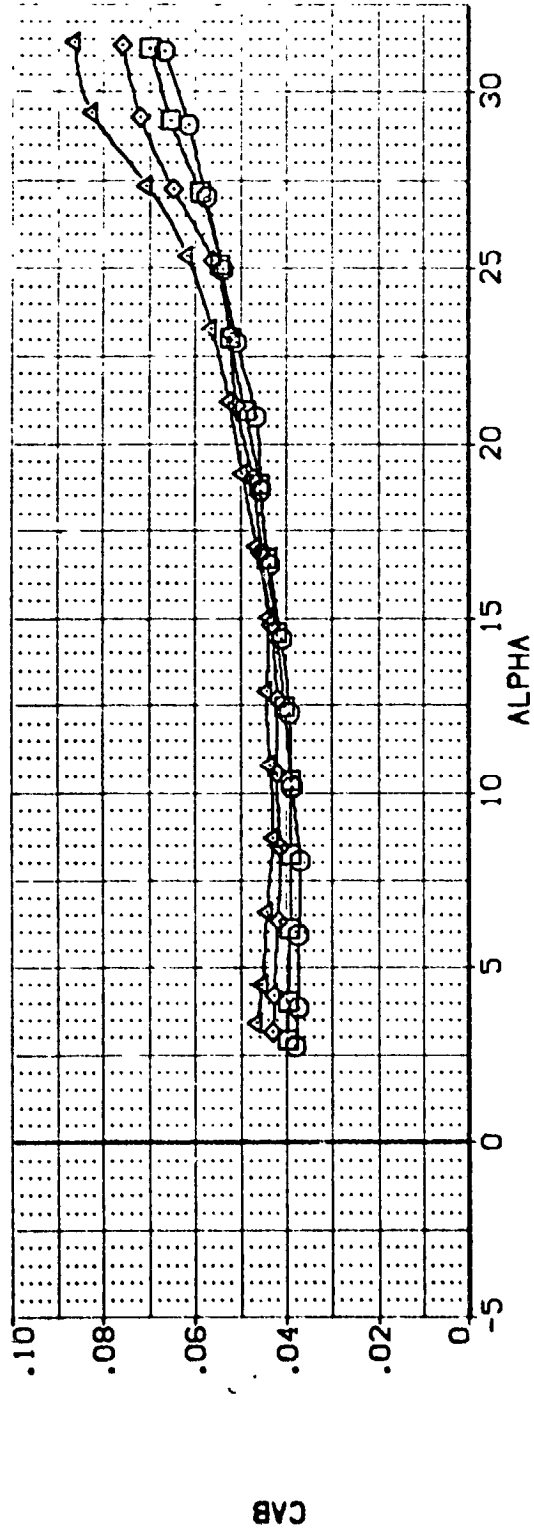


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

CA/MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDBRK	BOFLAP	REFERENCE INFORMATION
(802067)	QAE28 B26C9G1S477B/43V116E28VBR5X10	-20.000	.125	.000	-12.000	SREF 4.4119 SO. FT.
(802068)	QAE28 B26C9G1S477B/43V116E28VBR5X10	-10.000	.125	.000	-12.000	LREF 19.2299 INC. CS
(802070)	QAE28 B26C9G1S477B/43V116E28VBR5X10	.000	.125	.000	-12.000	BREF 37.9359 INC. CS
(802069)	QAE28 B26C9G1S477B/43V116E28VBR5X10	15.000	.125	.000	-12.000	XMRP 43.5974 INC. CS
						YMRP 0.000 INC. CS
						ZMRP 15.1875 INC. CS
						SCALE .0405

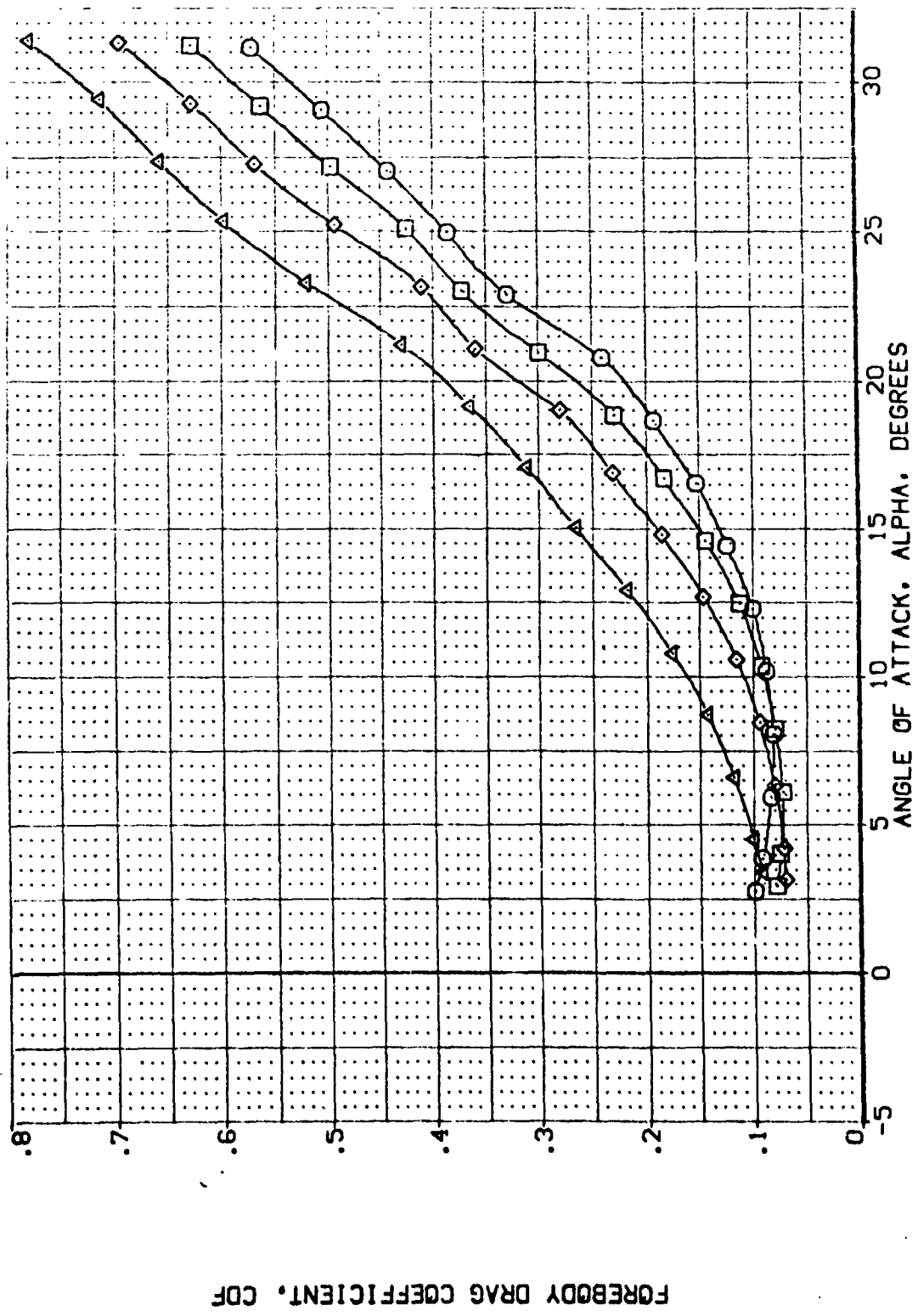


FIG 13 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.125  
 (M)MACH = .20 PAGE 206

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02067)	QAS28 B26C9G1 SM7F 6J43V116E28V8FSX10	-20.000	.125	.000	-12.000	SREF 4.4119 SQ.FT.
(B02068)	QAS28 B26C9G1 SM7F 6J43V116E28V8FSX10	-10.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02070)	QAS28 B26C9G1 SM7F 6J43V116E28V8FSX10	.000	.125	.000	-12.000	BREF 37.9359 INCHES
(B02069)	QAS28 B26C9G1 SM7F 6J43V116E28V8FSX10	15.000	.125	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

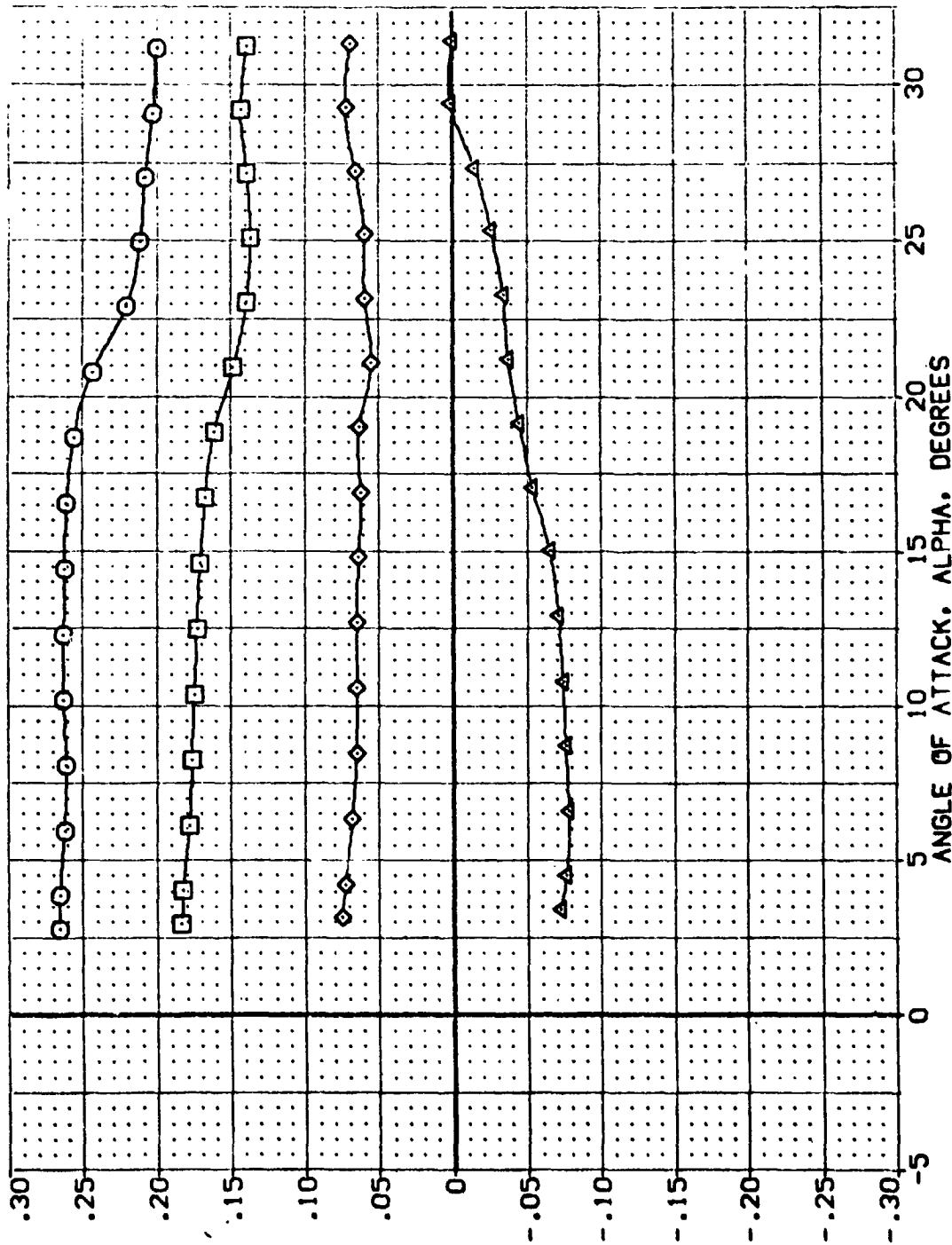


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(B02067) QAS28 B26C9G|S47F8J43V||16E28V8RSX10  
 (B02068) QAS28 B26C9G|S47F8J43V||16E28V8RSX10  
 (B02069) QAS28 B26C9G|S47F8J43V||16E28V8RSX10

ELEVON H/BW SPOBRK BOFLAP REFERENCE INFORMATION

-20.000 .125 .000 -12.000 SREF 4.4119 SO.FT.  
 -10.000 .125 .000 -12.000 LREF 19.2299 INCHES  
 .000 .125 .000 -12.000 XREF 37.9359 INCHES  
 15.000 .125 .000 -12.000 YREF 43.5974 INCHES  
 15.000 .125 .000 -12.000 ZREF 15.1875 INCHES  
 15.000 .125 .000 -12.000 SCALE .0403 INCHES

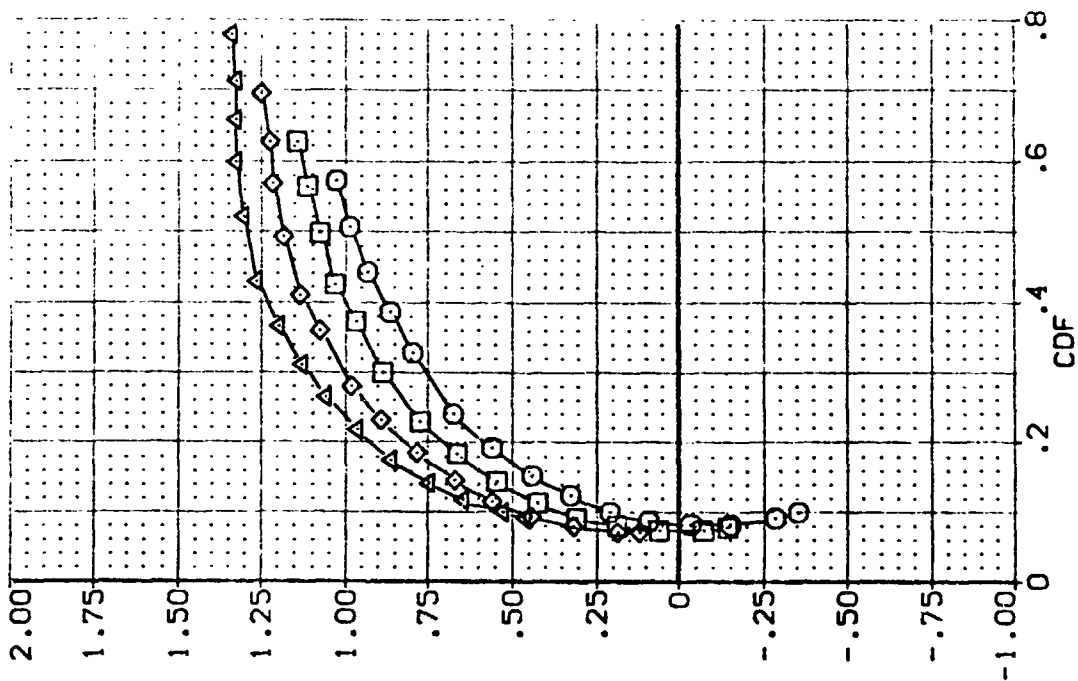
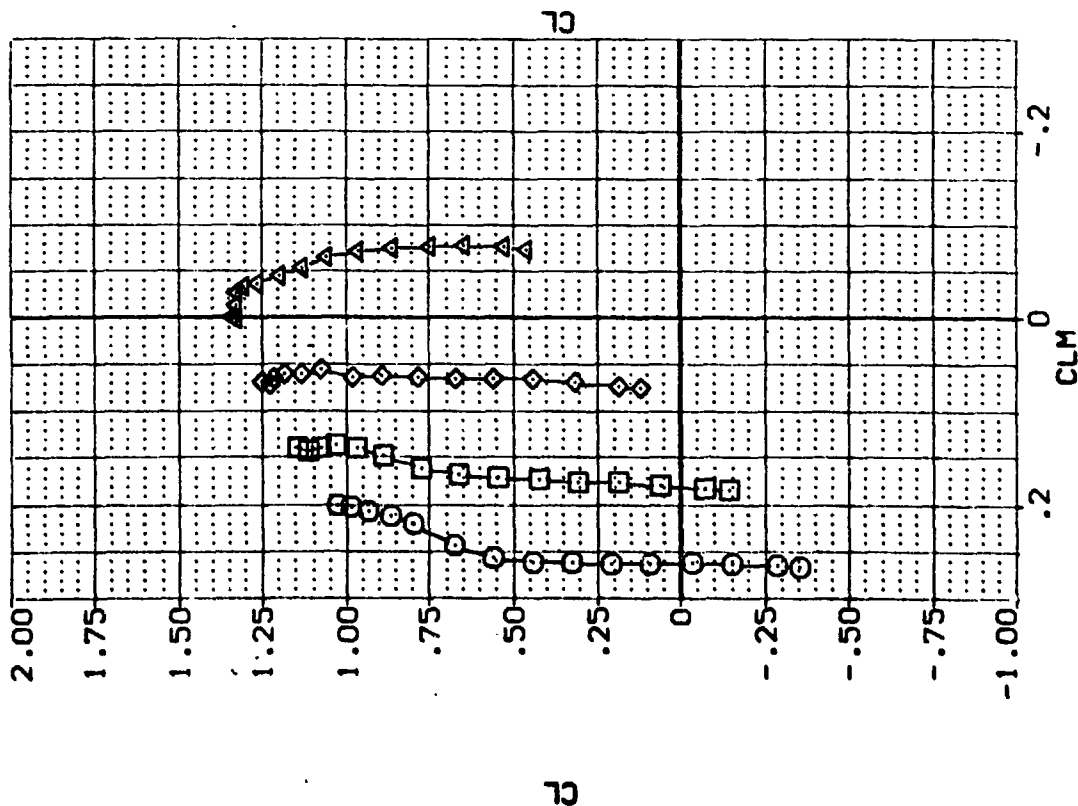
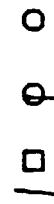
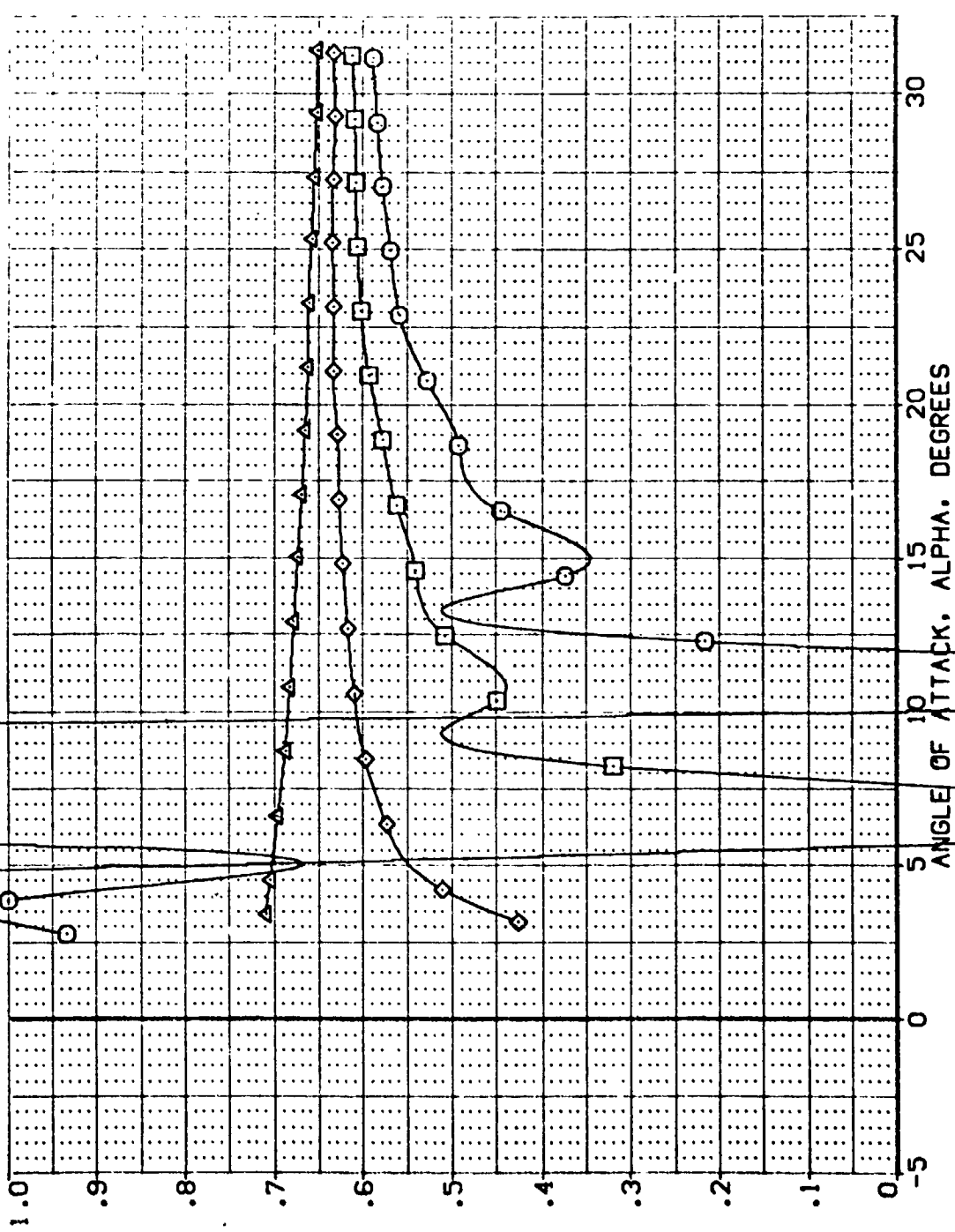


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDBRK	BOFLAP	REFERENCE INFORMATION
(B02067)	0A628 B26C96 547F8443V 16E28V BR5X10	-20.000	.125	.000	-12.000	SREF 4.4119 SQ.FT
(B02068)	0A628 B26C96 547F8443V 16E28V BR5X10	-10.000	.125	.000	-12.000	LREF 19.2293 INCHES
(B02070)	0A628 B26C96 547F8443V 16E28V BR5X10	15.000	.125	.000	-12.000	BREF 37.9359 INCHES
(B02069)	0A628 B26C96 547F8443V 16E28V BR5X10			.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405



LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

FIG 13 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.125

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(802057)	0A628	B26C9G 5M7F 8J43V  6E28V8RSX10
(802058)	0A628	B26C9G 5M7F 8J43V  6E28V8RSX10
(802070)	0A628	B26C9G 5M7F 8J43V  6E28V8RSX10
(802069)	0A628	B26C9G 5M7F 8J43V  6E28V8RSX10

ELEVON H/BW SPDRK BOFLAP REFERENCE INFORMATION

-20.000	.000	-12.000	SREF	4.4119	SO.FT.
-10.000	.000	-12.000	LREF	19.2299	INCHES
.000	.000	-12.000	BREF	37.9359	INCHES
15.000	.000	-12.000	YREF	43.5374	INCHES
			YREF	.0500	INCHES
			ZREF	15.1875	INCHES
			SCALE	.0405	SCALE

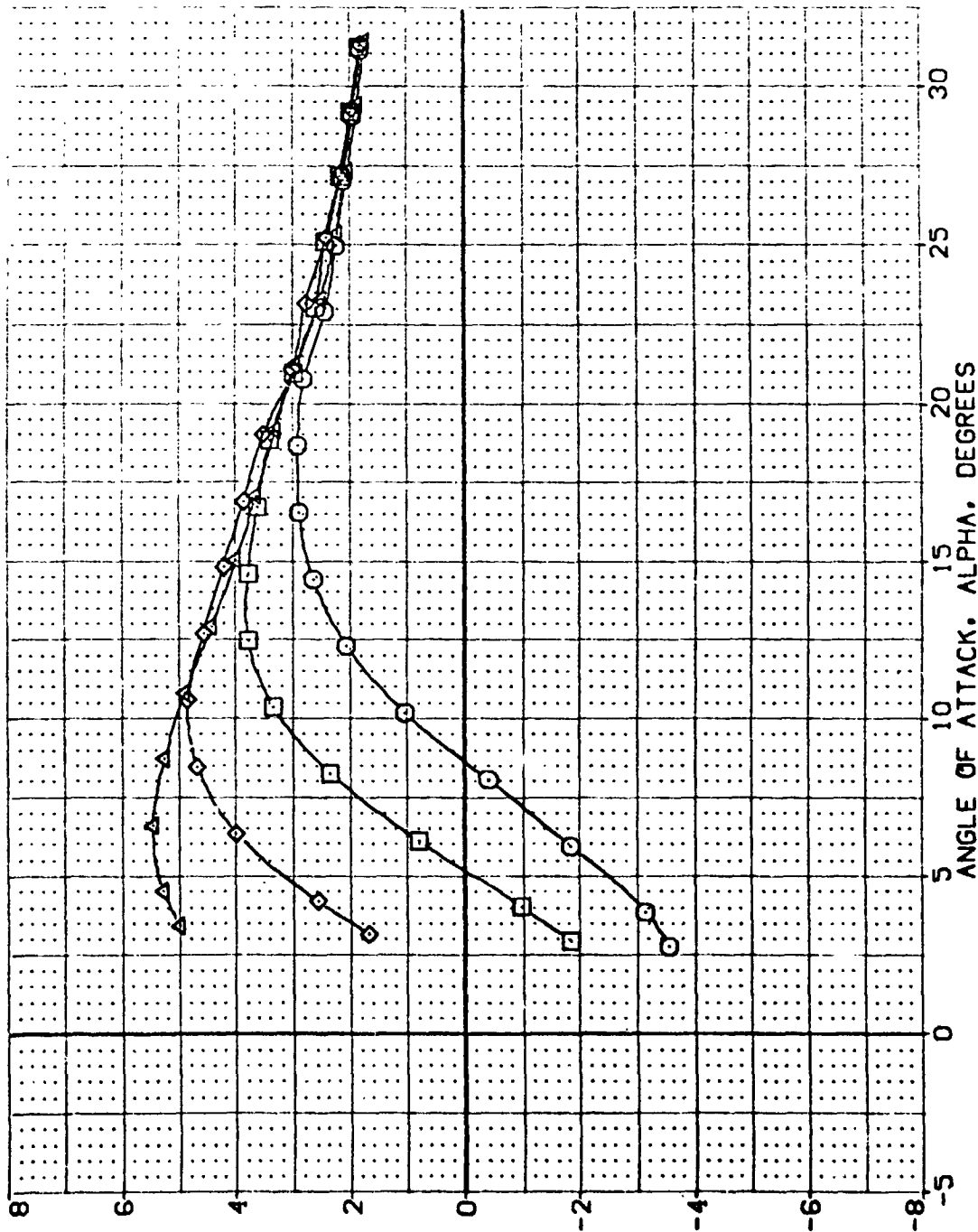


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

(A)MACH = .20

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ067)

SYMBOL	ALPHA	MACH	BOFLAP	RUDDER	H/BW	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	.000	.000	.000	.000	.000	BETA	DELTON	SREF
						.200	DELTON	4.4119
						.125	DELTON	19.2299
						.000	DELTON	37.9359
						.000	DELTON	43.5974
						.000	DELTON	15.0000
						.000	DELTON	15.1875
						.000	DELTON	SCALE
						.0405	DELTON	

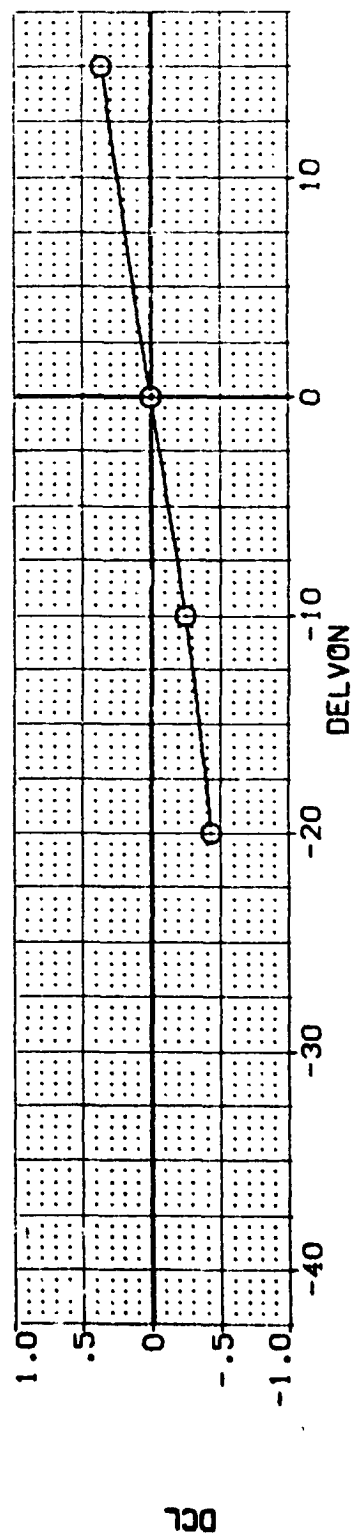
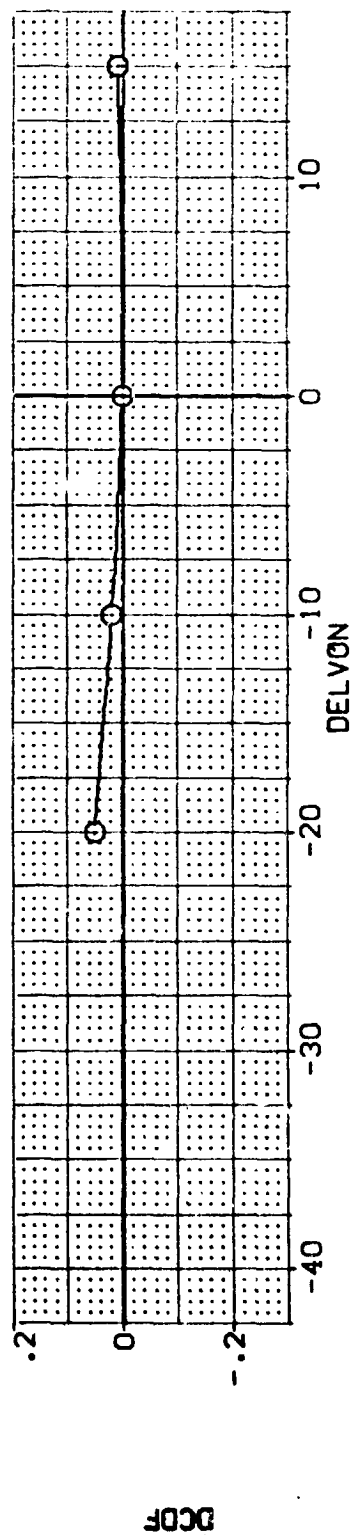
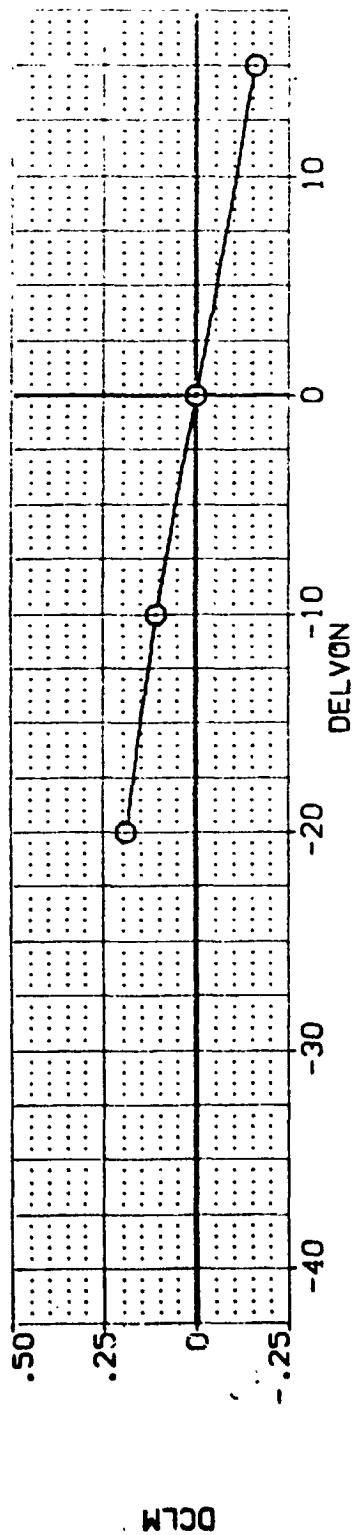


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125





0A62B B26C9G15M7F8J43W116E28V8R5X10 (1DZ067)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	10.000		BETA	.000 DATASET	SREF
			-12.000 AIRLON	.000 IDZ067	LREF
			.000 SPOBRK	.000 IDZ070	BREF
			.125		XMRP
					YMRP
					ZMRP
					SCALE
					SCALE

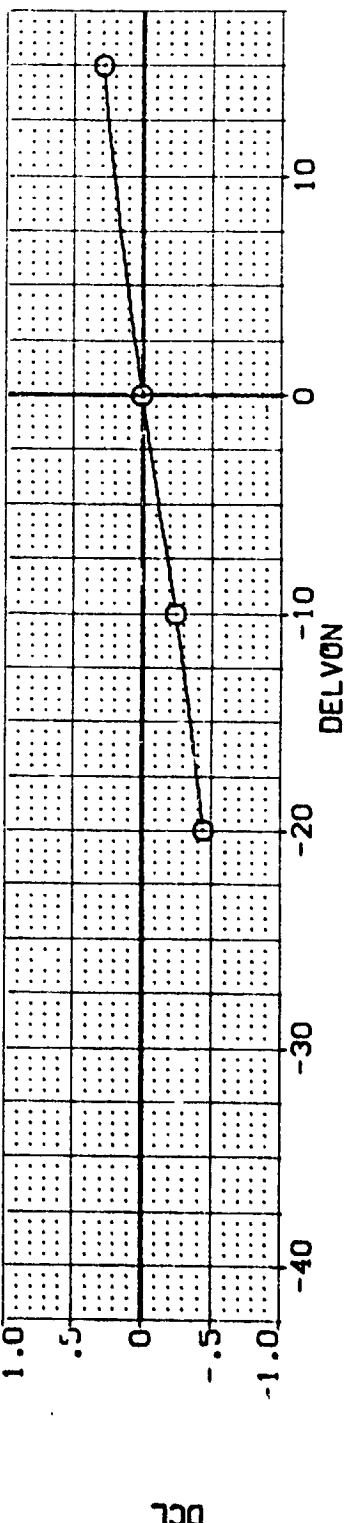
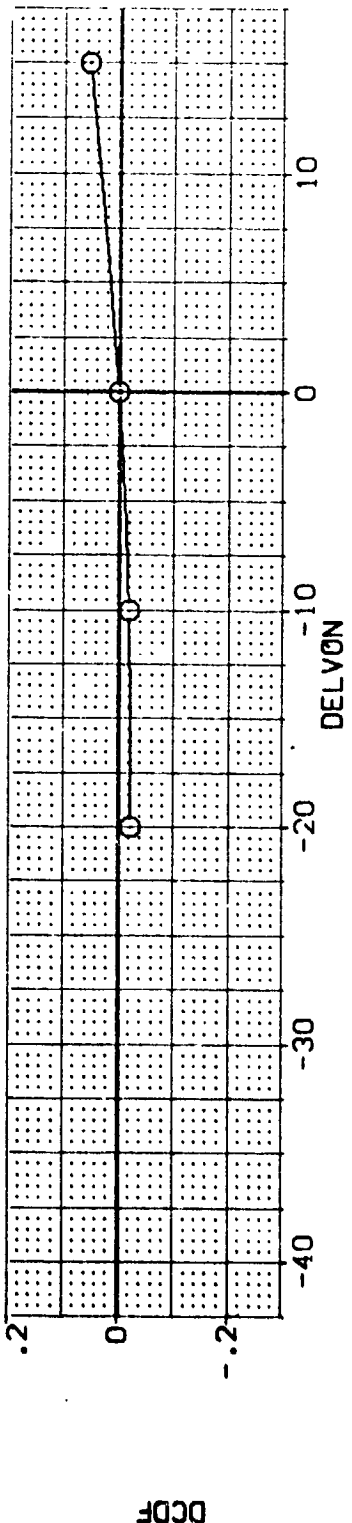
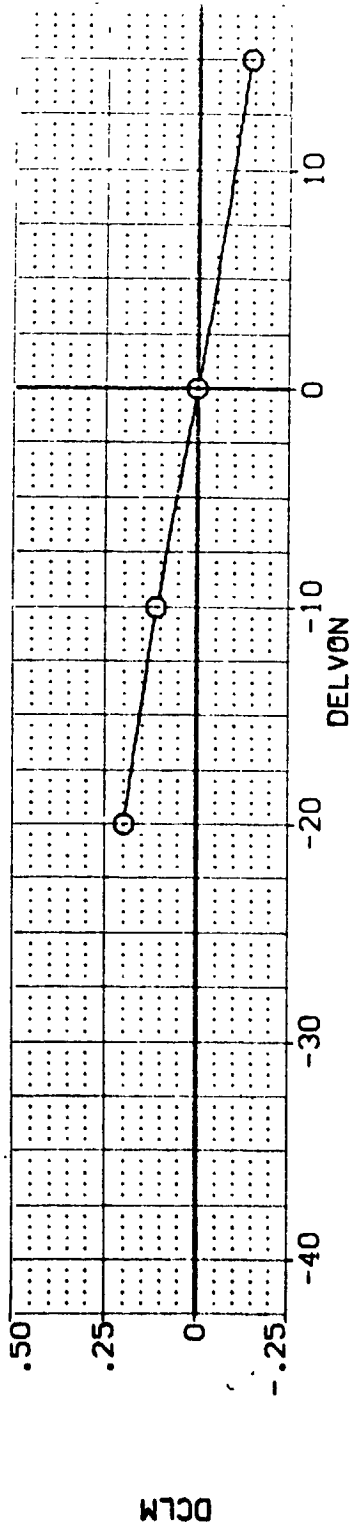


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

(1DZ067)

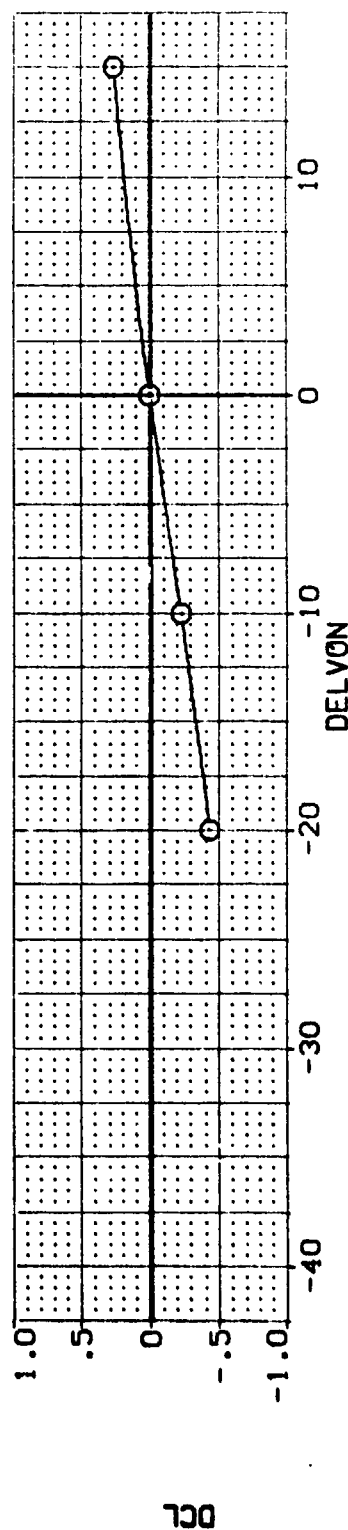
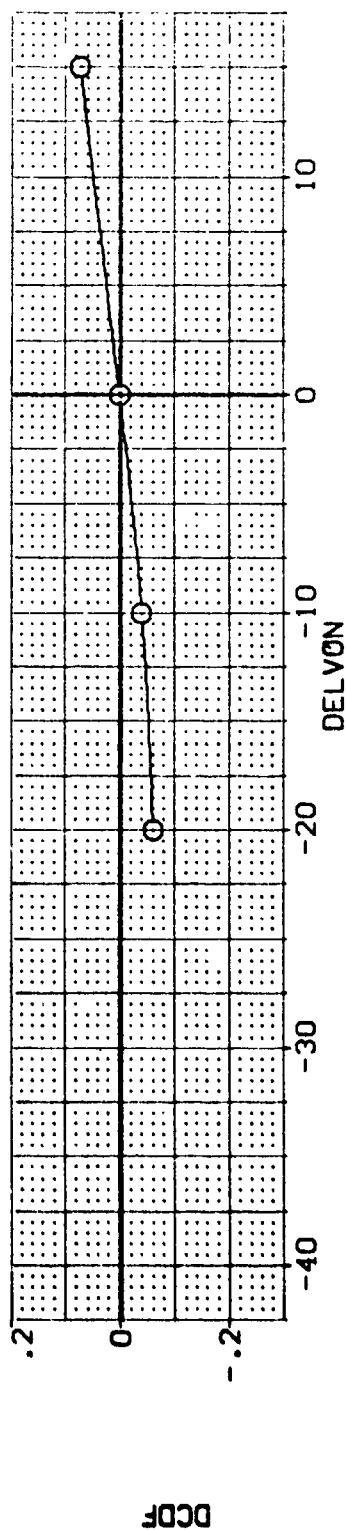
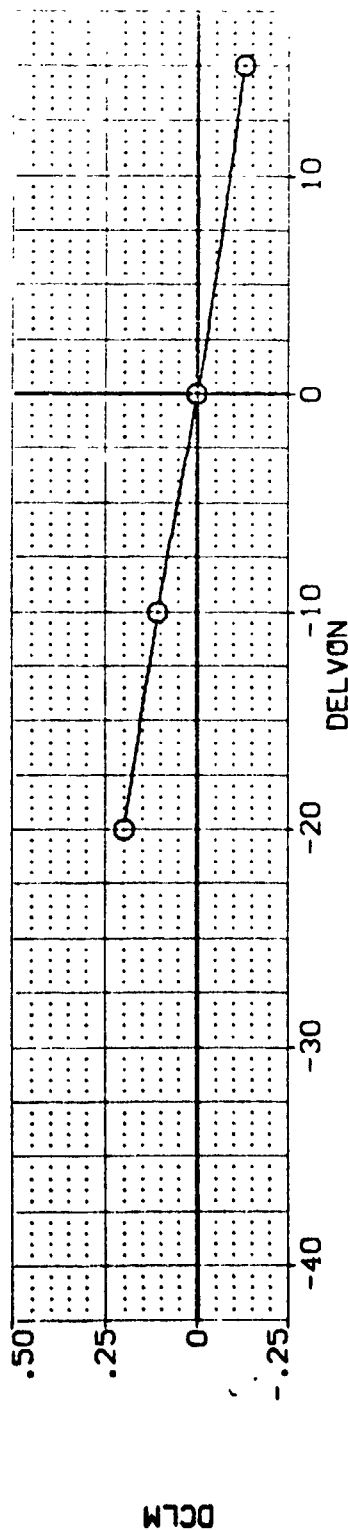
[illegible]

FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODED ENGINES,  $H/BW = 0.125$

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ067)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	20.000	BOFLAP	.200 BETA	.000 DATASET	4.4119 SREF
		RUDDER	-12.000 AILRON	.000 IDZ067	19.2239 LREF
		H/BW	.000 SPOBRK	.000 IDZ069	37.9359 BREF
			.125	.000 IDZ070	43.5974 XMRP
					.0000 YMRP
					15.1875 ZMRP
					.0405 SCALE

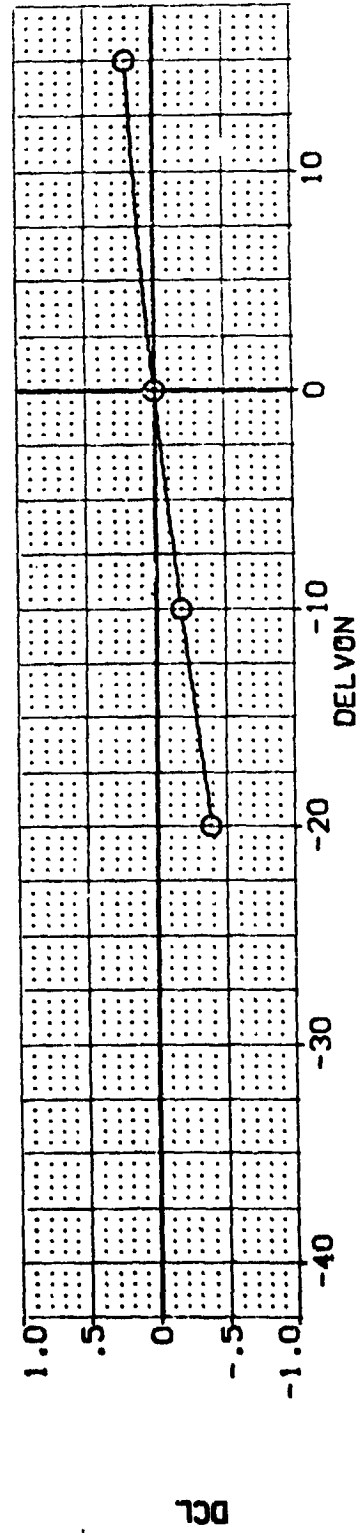
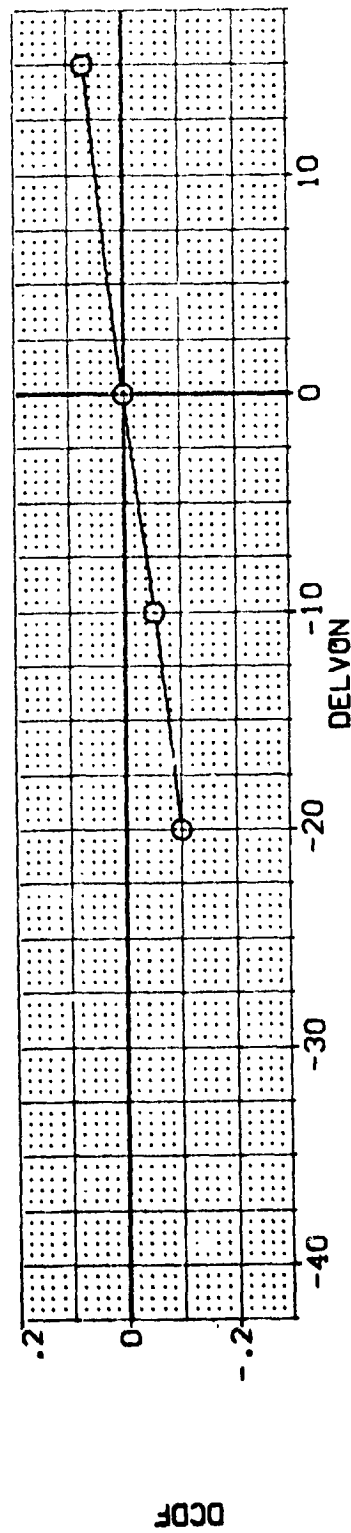
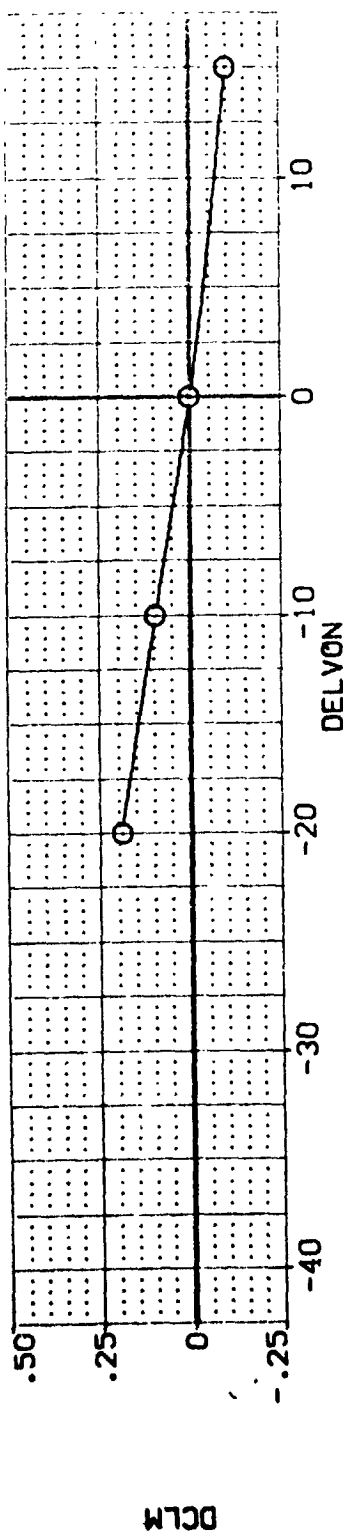


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ067)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	25.000	BOFLAP RUDDER H/BW	.200 -12.000 .000 .125	.000 DATASET .000 1DZ067 .000 1DZ070 DELTON -20.000 .000	4.4119 19.2299 37.9359 13.5914 0.0000 15.1875 SCALE .0405
					SO. FT. INCHES INCHES INCHES INCHES INCHES SCALE

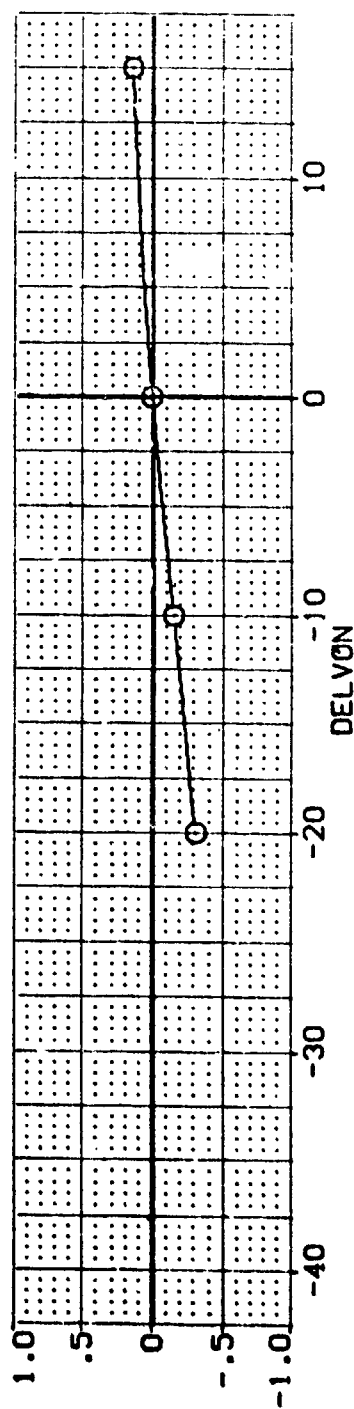
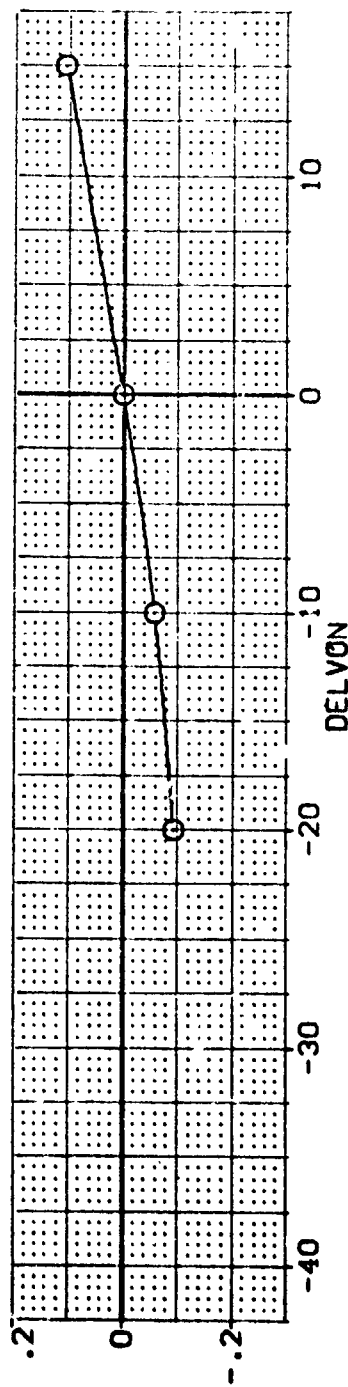
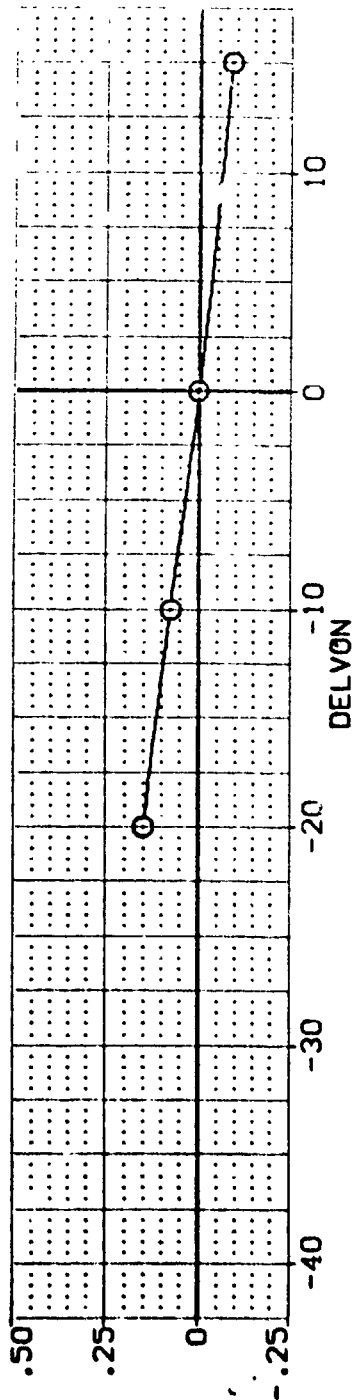


FIG 13 ELEVON EFFECTIVENESS. UNDERWING PODDED ENGINES. H/BW = 0.125

(107067)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	30.000	MACH .200	BETA	4.4119 SO.FT.
		-12.000	AILRON	19.2269 INCHES
		.000	SPOBRK	37.9359 INCHES
		.125		43.5974 INCHES
				15.1875 INCHES
				SCALE .0405

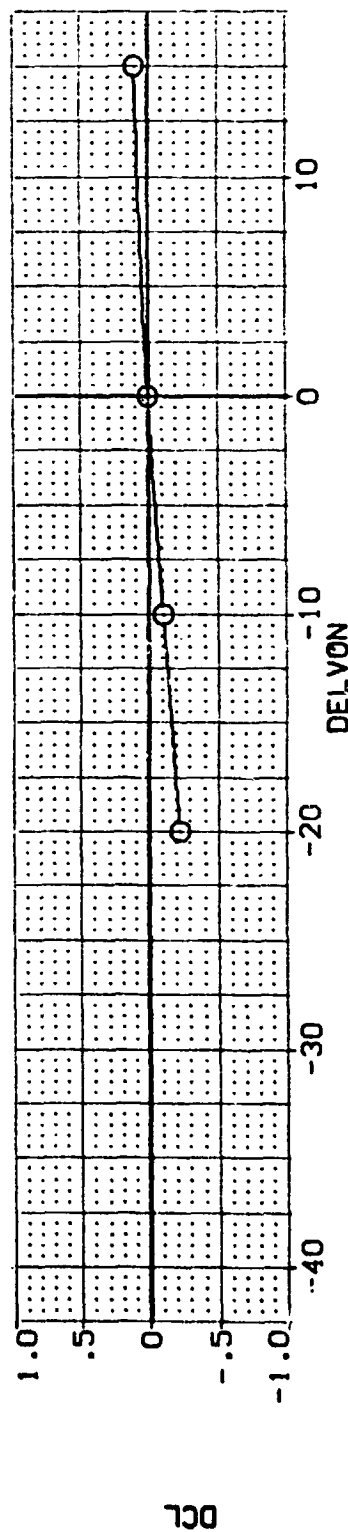
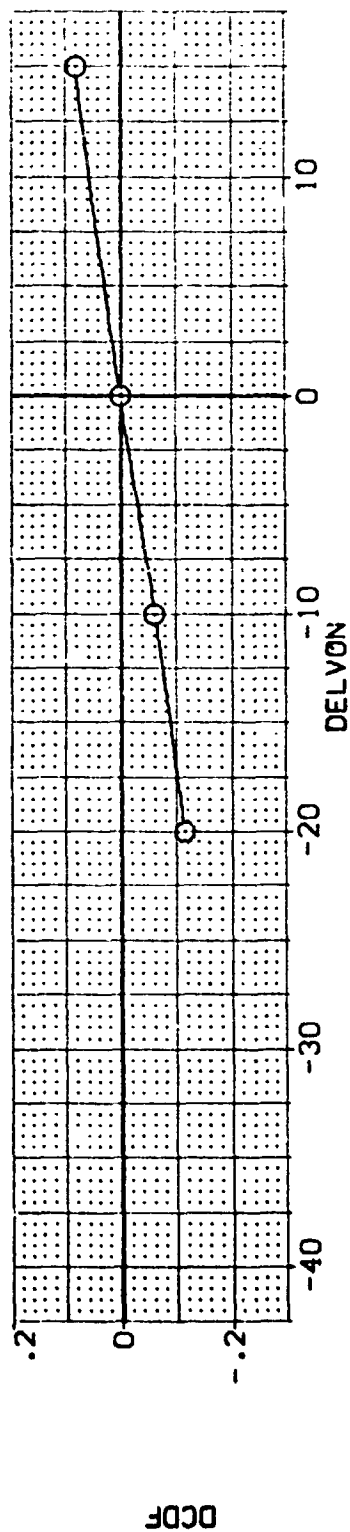
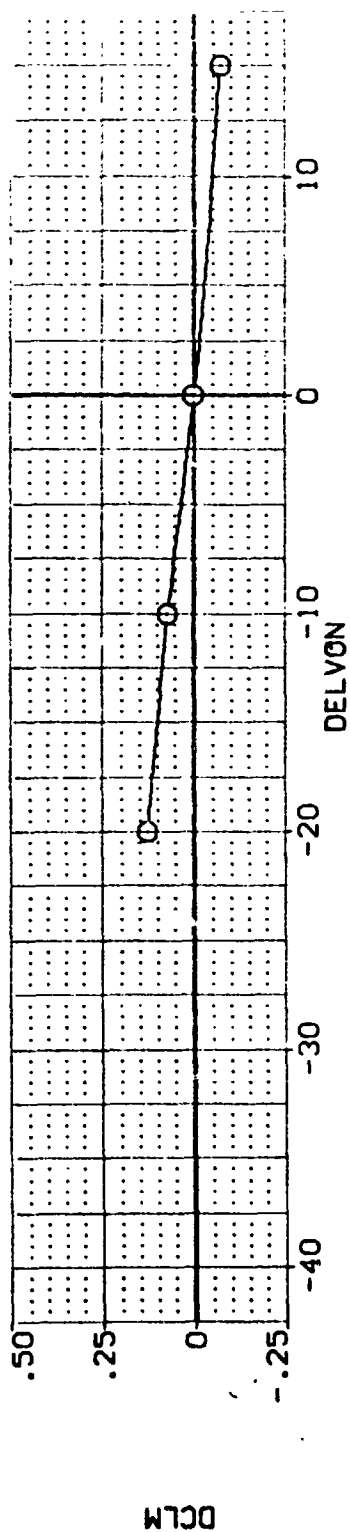


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODED ENGINE,  $H/BW = 0.125$

0A62B B26C9G15M7F8J43W116E28V8R5X10 (1DZ067)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	DATASET	DELTON	SREF	REFERENCE INFORMATION
O	.000		.200 BETA	.000	IDZ067	-20.000	IDZ068	-10.000	4.4119	SO. FT
			-12.000 AILRON	.000	IDZ070	.000	IDZ069	15.000	19.2289	INCHES
			.000 SPDGRK						37.9359	INCHES
			.125						43.5974	INCHES
									.0000	INCHES
									15.1875	INCHES
									.0405	SCALE

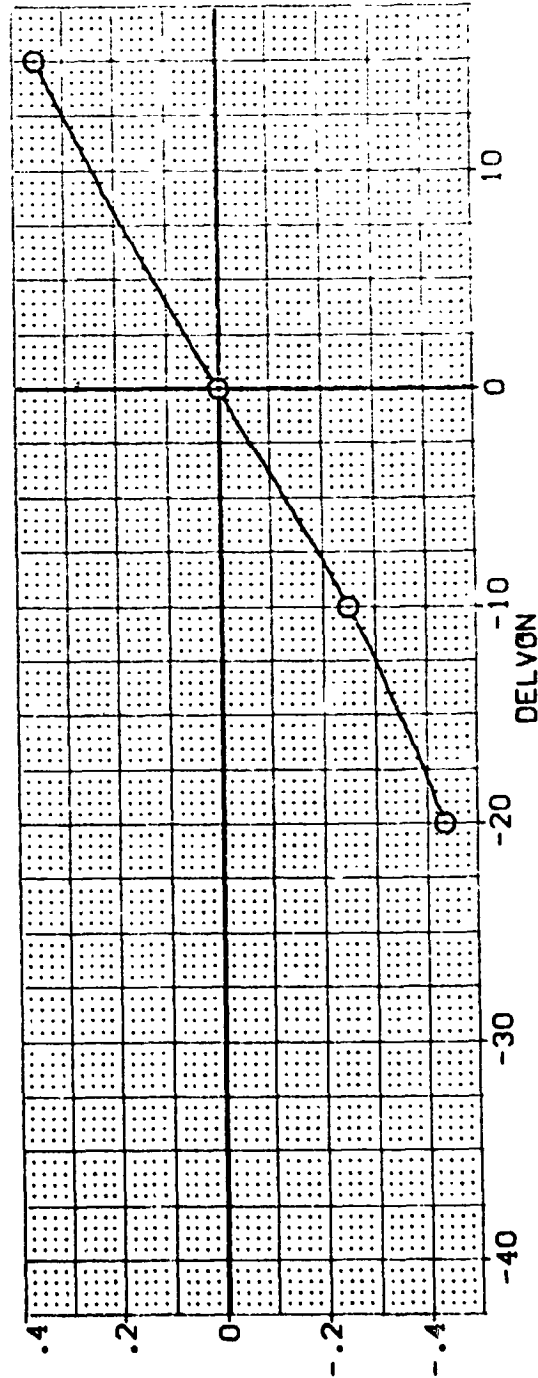
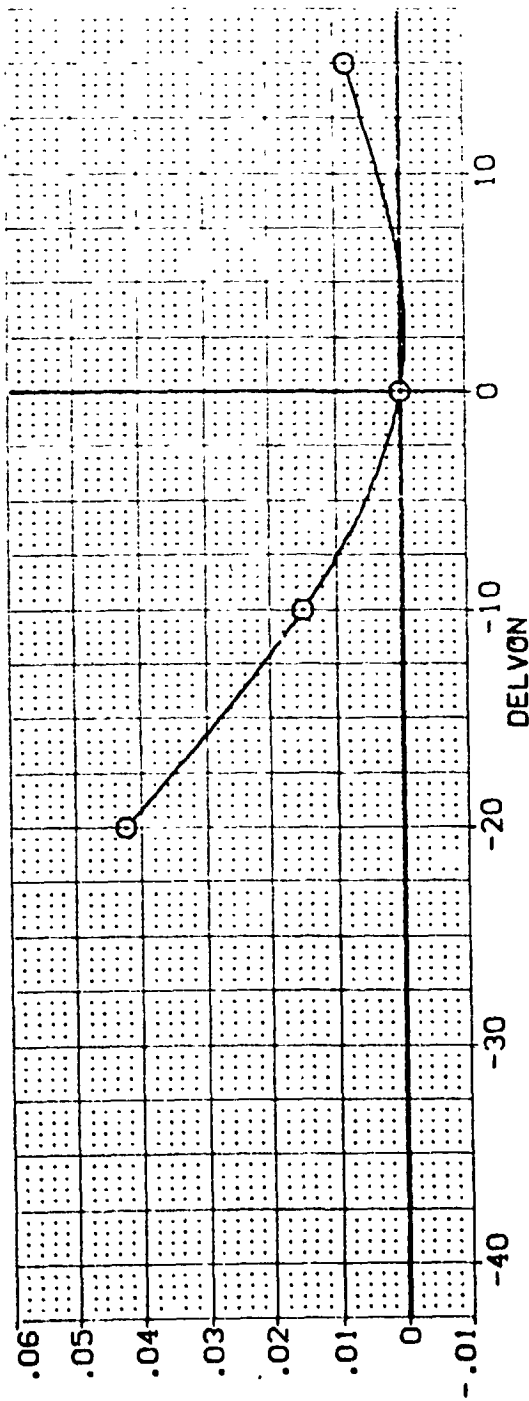


FIG 13 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.125

GA62B B26C9G15M7F8J43W!16E28V8R5X10

SYMBOL	ALPHA
0	5.000

PARAMETRIC VALUES	
BETA	.200
ATLRBN	-12.000
SPDRBK	.000
W/BV	.125

	DATA SOURCE
.000	DELVON
.000	-20.000
.000	.000

DATASET	DELVSN	SLB X
10Z068	-10.000	
10Z069	15.000	

REFERENCE INFORMATION	
SREF	4.4119
LREF	19.2739
BREF	37.9759
XMRP	43.5374
YMRP	.0000
ZMRP	15.1875
SCALE	.0405

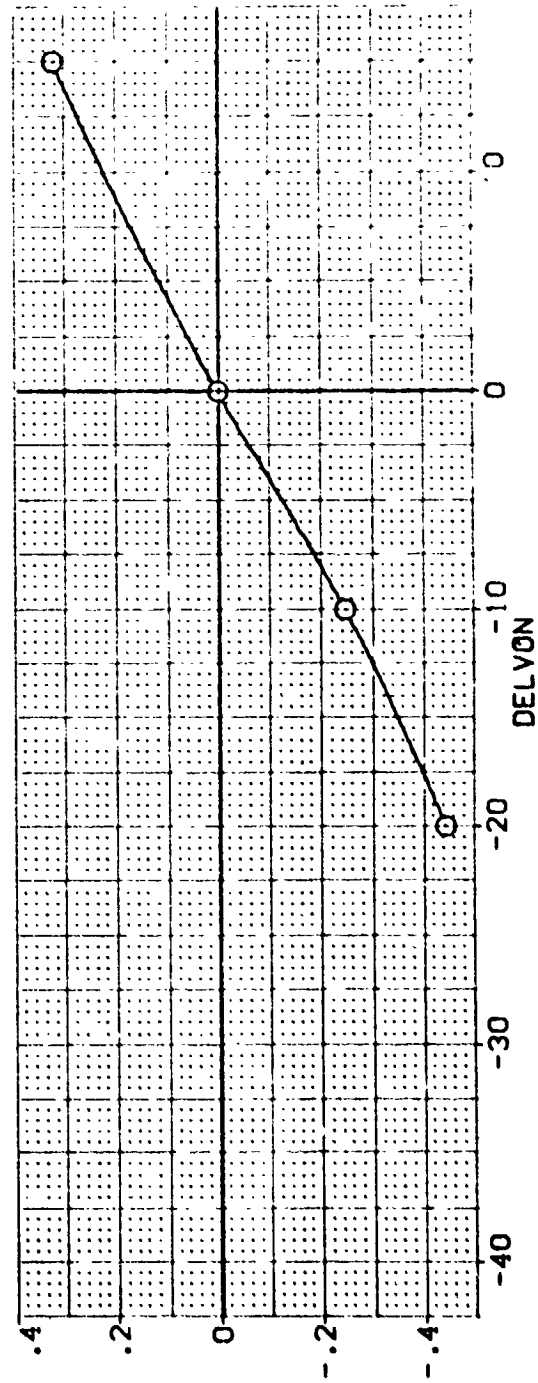
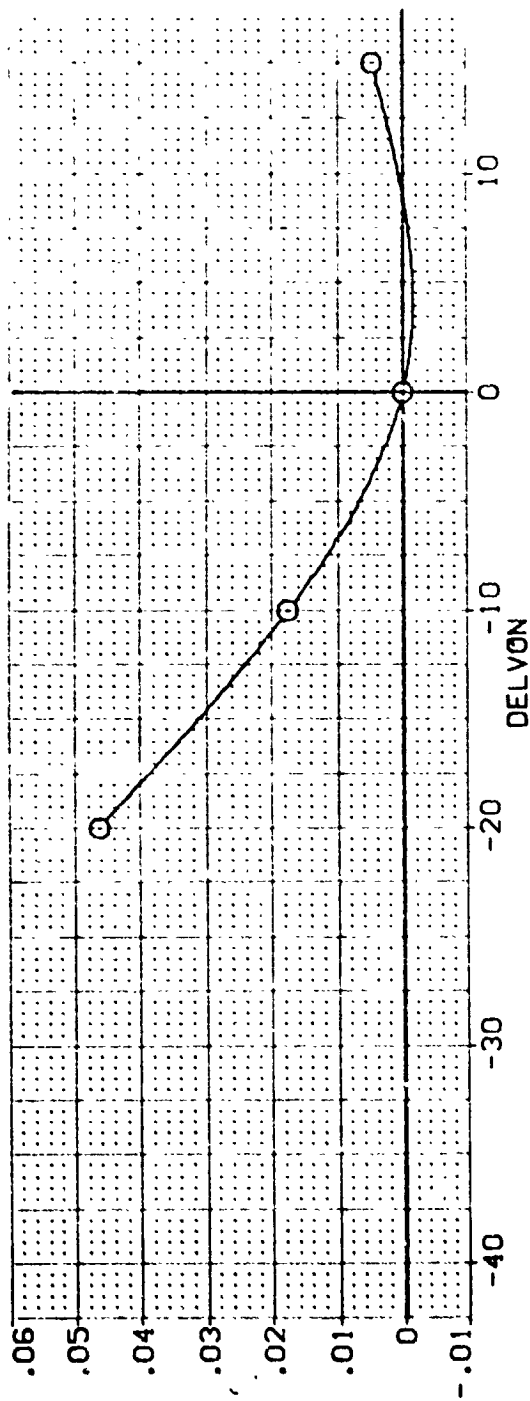


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODED ENGINES,  $H/BW = 0.125$

(1DZ067)

**SYMBOL**

ALPHA  
10,000

MACH  
BOFLAP  
RUDDER  
H/VB

PARAMETRIC VALUES
BETA .200
ALLRON -12.000
SPOBRK .000
.125

DATA SOURCE	DATASET	DELVN
,000	10Z067	-20,000
,000	10Z070	,000

REFERENCE INFORMATION

4.4119	SO.F.T.
19.2399	INCHES
3.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

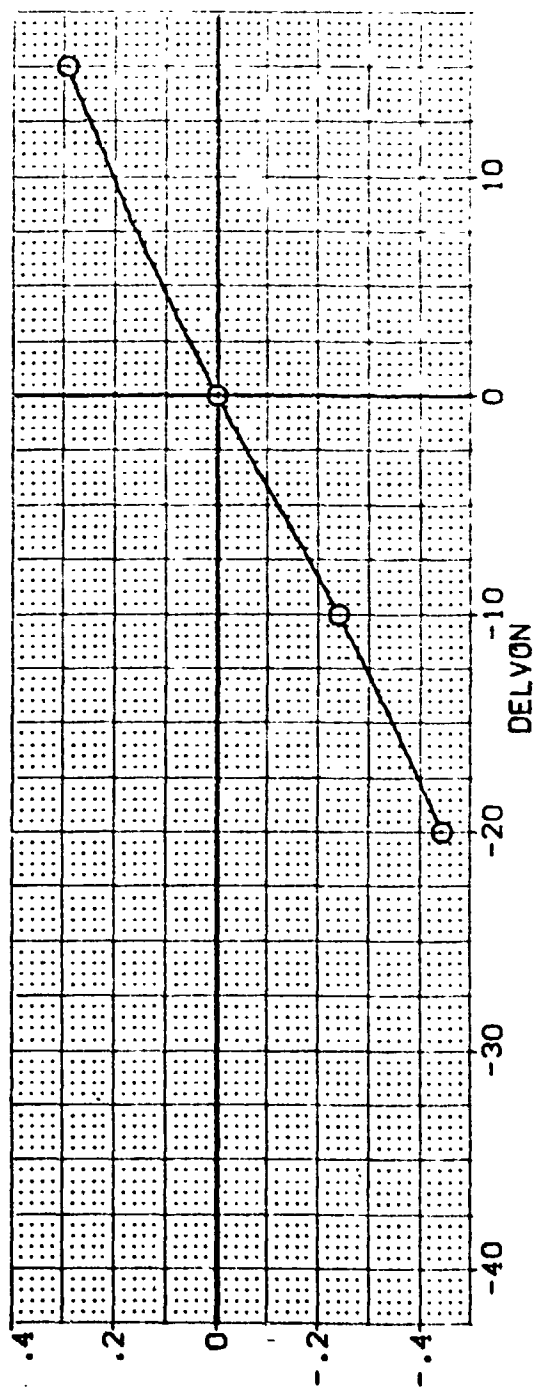
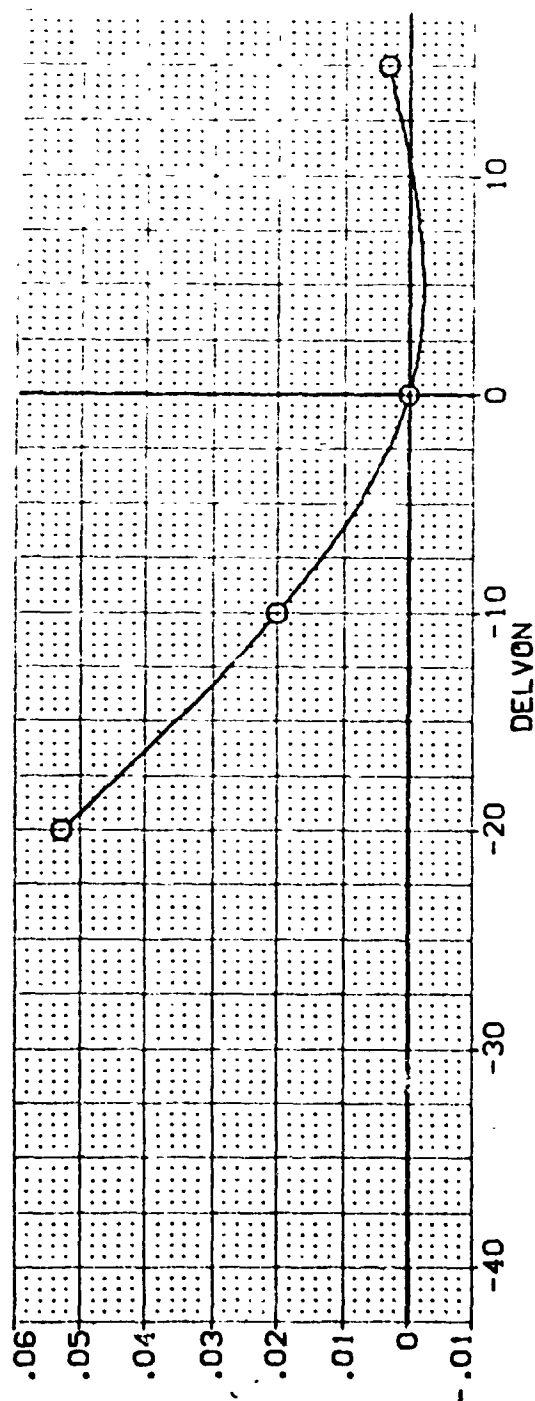


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODED ENGINE,  $H/BW = 0.125$







0A62B B26C9G15M7F8J43W116E28V8R5X10 (1DZ067)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	20.000	BDFLAP	.200 BETA	.000 DATASET	SREF 4.4119 SO.FT.
		BOFLAP	-12.000 AILRON	.000 IDZ067	LREF 19.2299 INCHES
		RUDDER	.000 SPD8RK	.000 IDZ069	BREF 37.9359 INCHES
		H/BW	.125	.000	XMAX 43.5974 INCHES
					YMRP .0000 INCHES
					ZMRP 15.1875 INCHES
					SCALE .0405

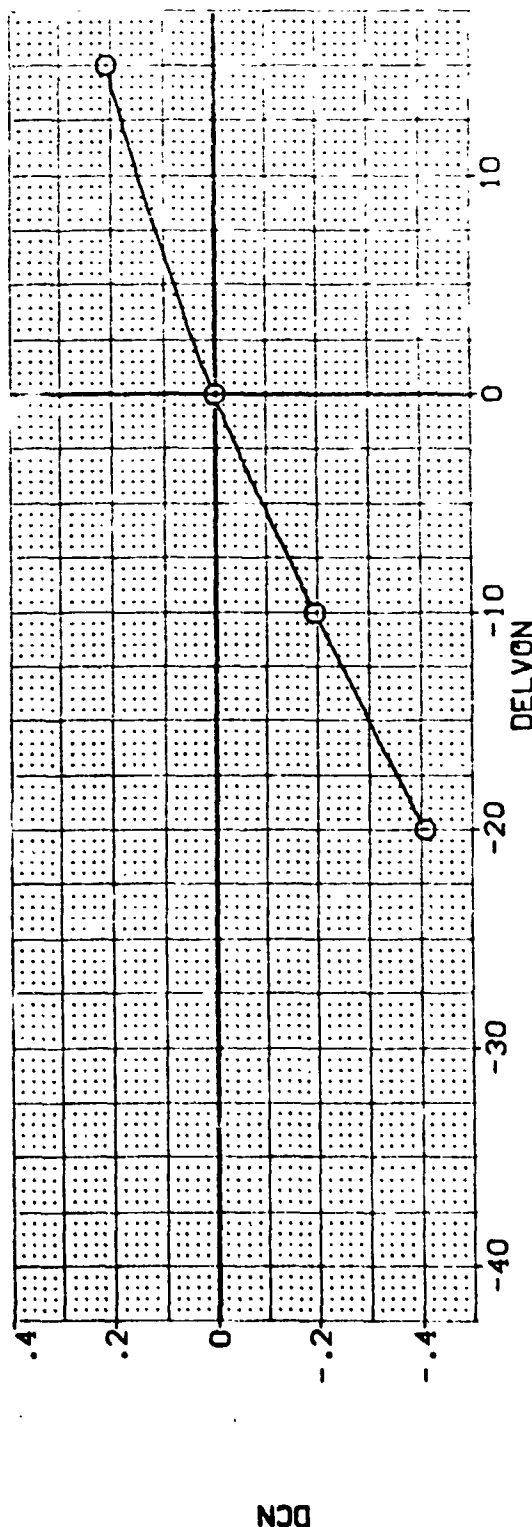
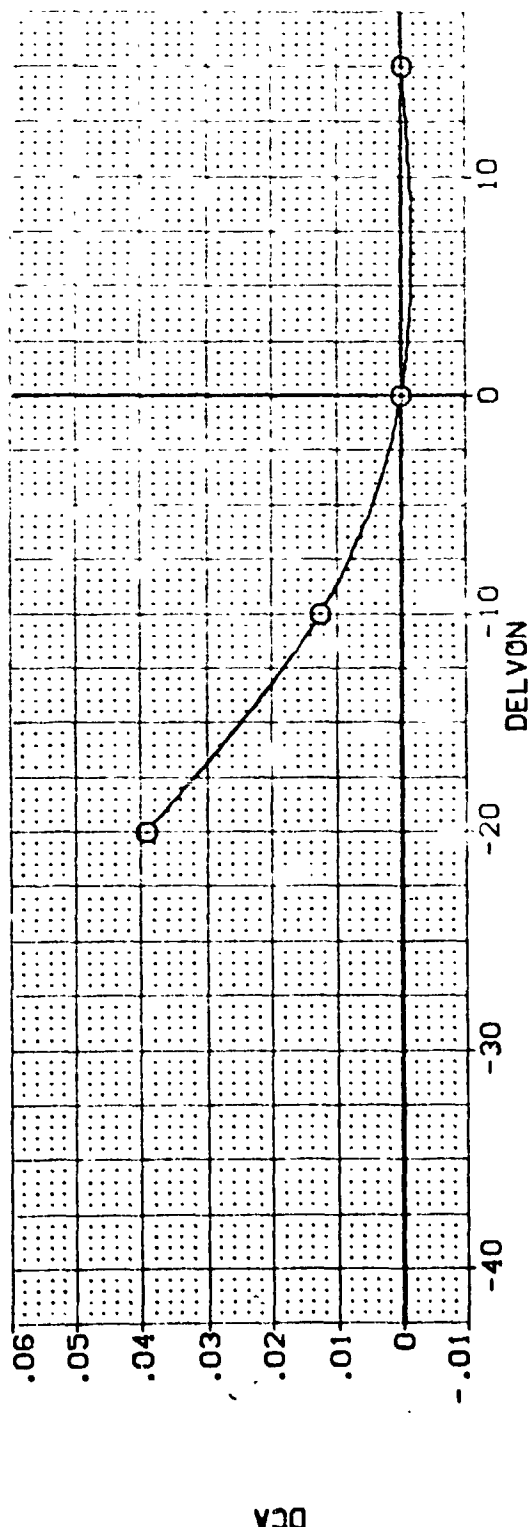


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

0A62B B26C9G15M7F8J43W116E28V8R5X10 (1DZ067)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	25.000	80° LAP	.200 BETA	.000 DATASET	4.4119 SQ. FT.
			-12.000 AILRON	.000 DELVON	19.2298 INCHES
			.000 SPOBRK	1DZ068 LREF	37.9359 INCHES
			.125	1DZ069 BREF	43.5374 INCHES
				.000 YMRP	.0000 INCHES
				15.1875 ZMRP	.0405 SCALE

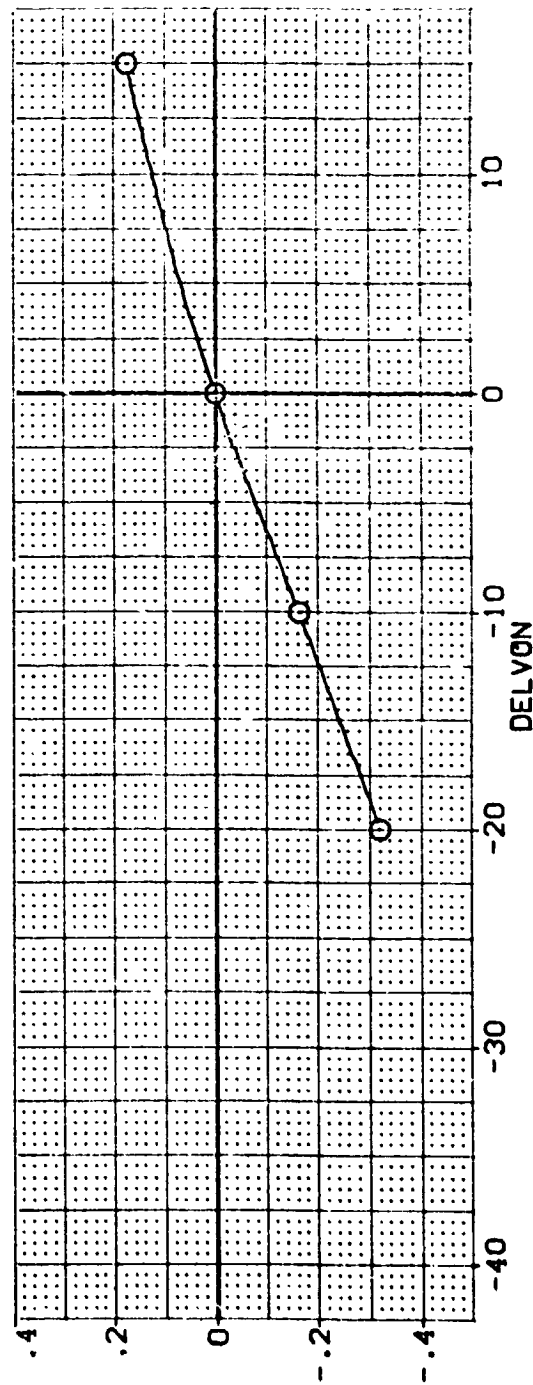
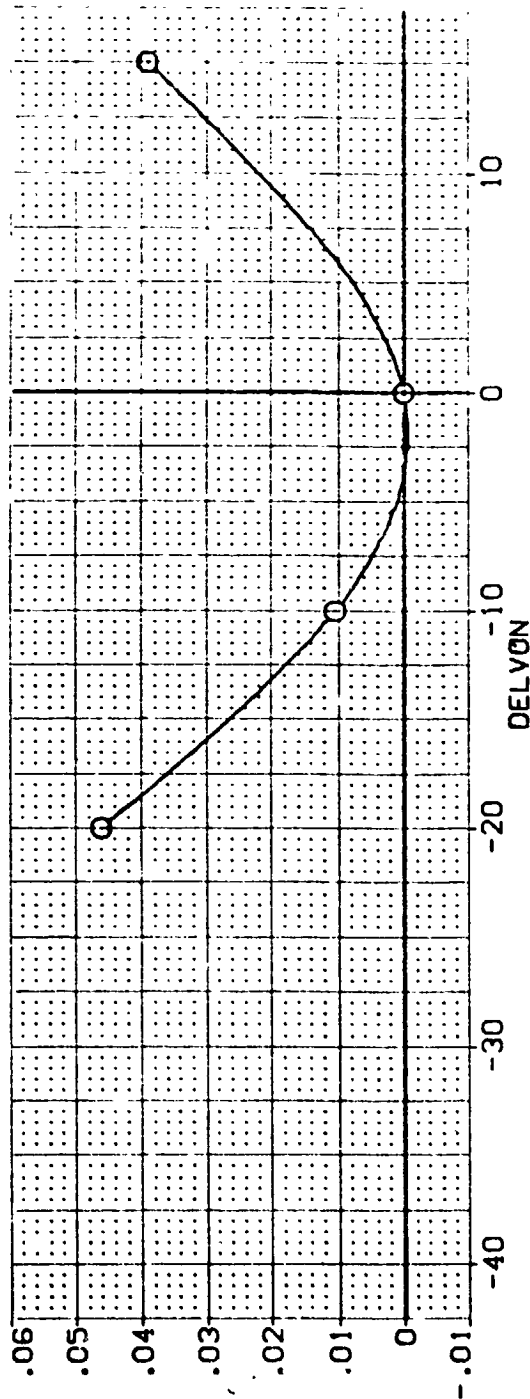


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.125

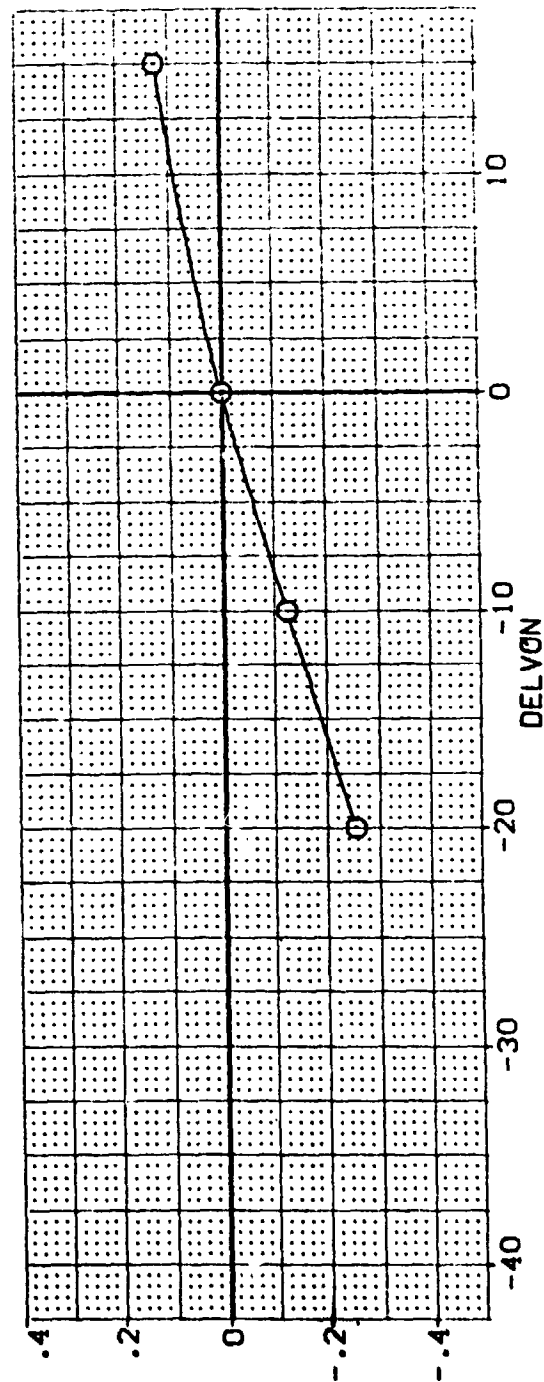
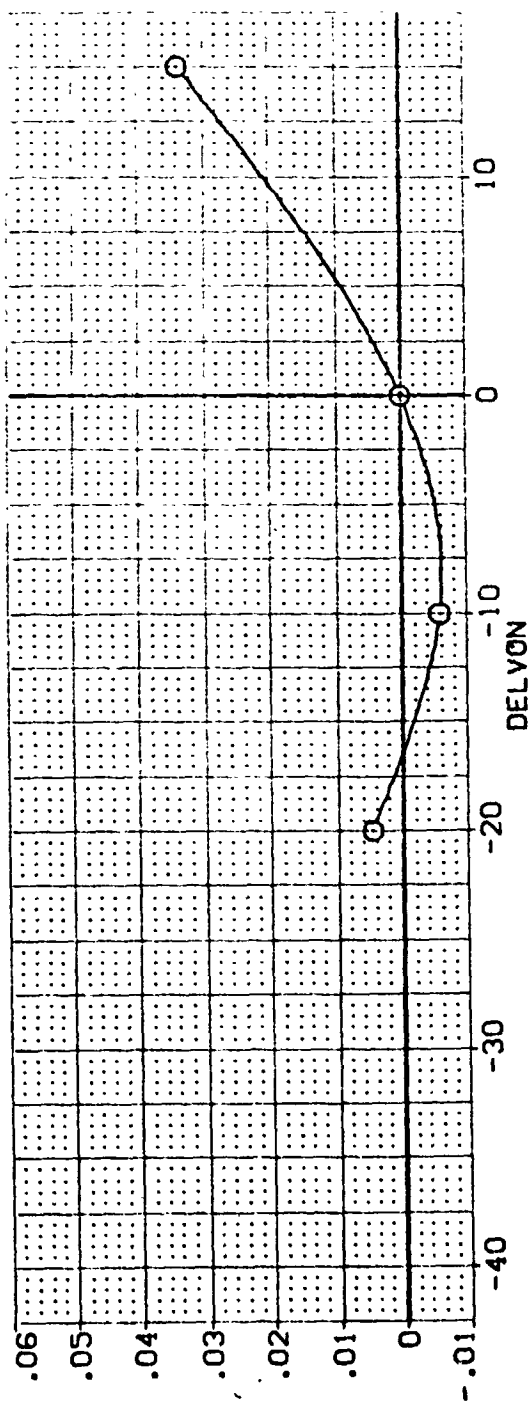
$$\frac{5n+8}{0}$$


FIG 13 ELEVON EFFECTIVENESS, UNDERWING PODED ENGINES,  $H/BW = 0.125$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFT AP	REFERENCE INFORMATION
(B02076)	0A628 B26C9G 547F8J43V  6E28VBR5X10	-20.000	.285	.000	-12.000	SREF 4.4119 SO.FT.
(B02075)	0A628 B26C9G 547F8J43V  6E28VBR5X10	-10.000	.285	.000	-12.000	LREF 19.2293 INCHES
(B02073)	0A628 B26C9G 547F8J43V  6E28VBR5X10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
(B02074)	0A628 B26C9G 547F8J43V  6E28VBR5X10	15.000	.285	.000	-12.000	XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405

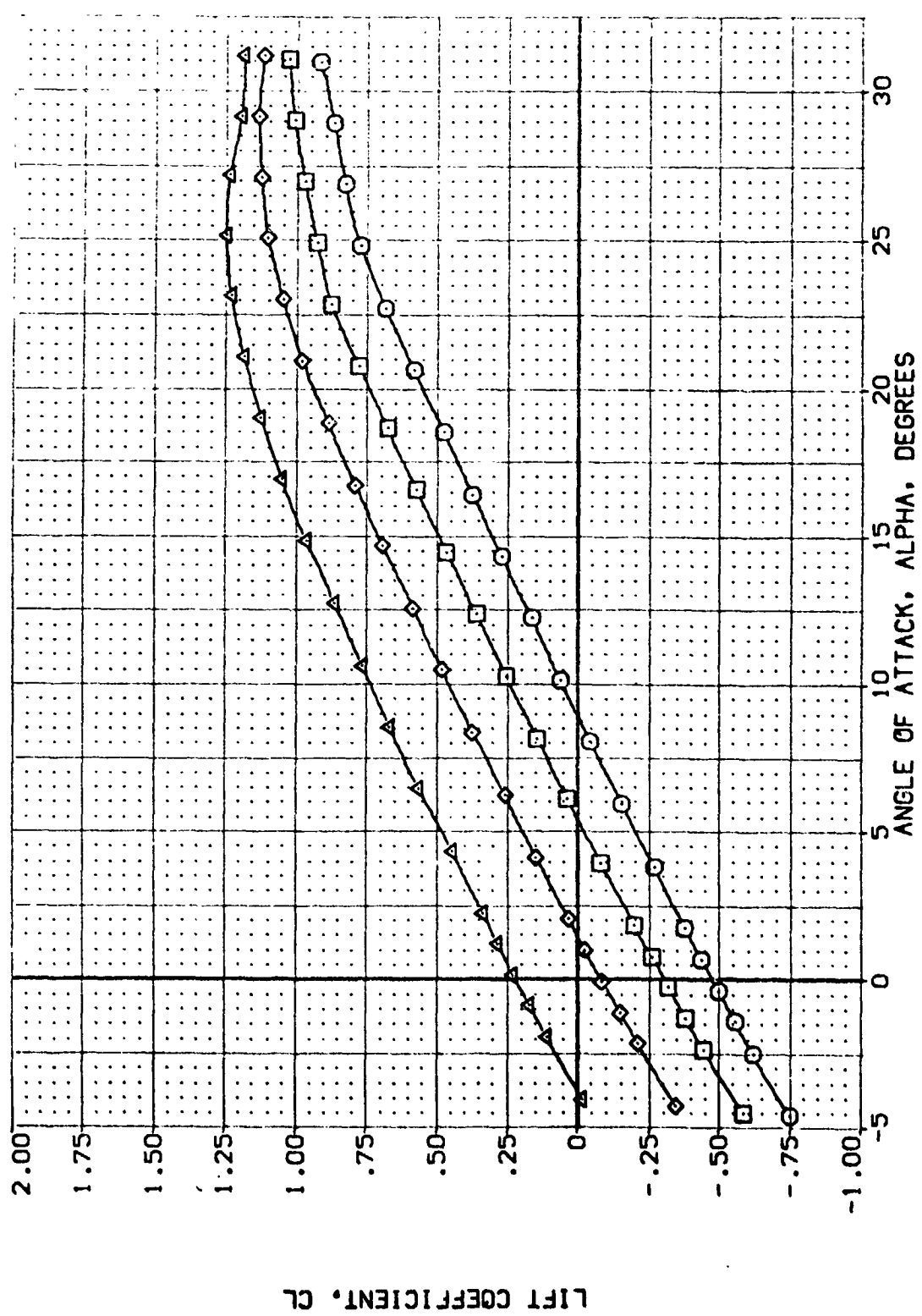


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285  
 (A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02076) QAS28 B26C9G|5MTF8J43V|16E28V85X10  
 (B02075) QAS28 B26C9G|5MTF8J43V|16E28V85X10  
 (B02073) QAS28 B26C9G|5MTF8J43V|16E28V85X10  
 (B02074) QAS28 B26C9G|5MTF8J43V|16E28V85X10

ELEVON H/BW SPOBRK BDFLAP REFERENCE INFORMATION  
 -20.000 .285 .000 -12.000 SREF 4.4119 50. FT.  
 -10.000 .285 .000 -12.000 LREF 19.2299 INCHES  
 15.000 .285 .000 -12.000 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

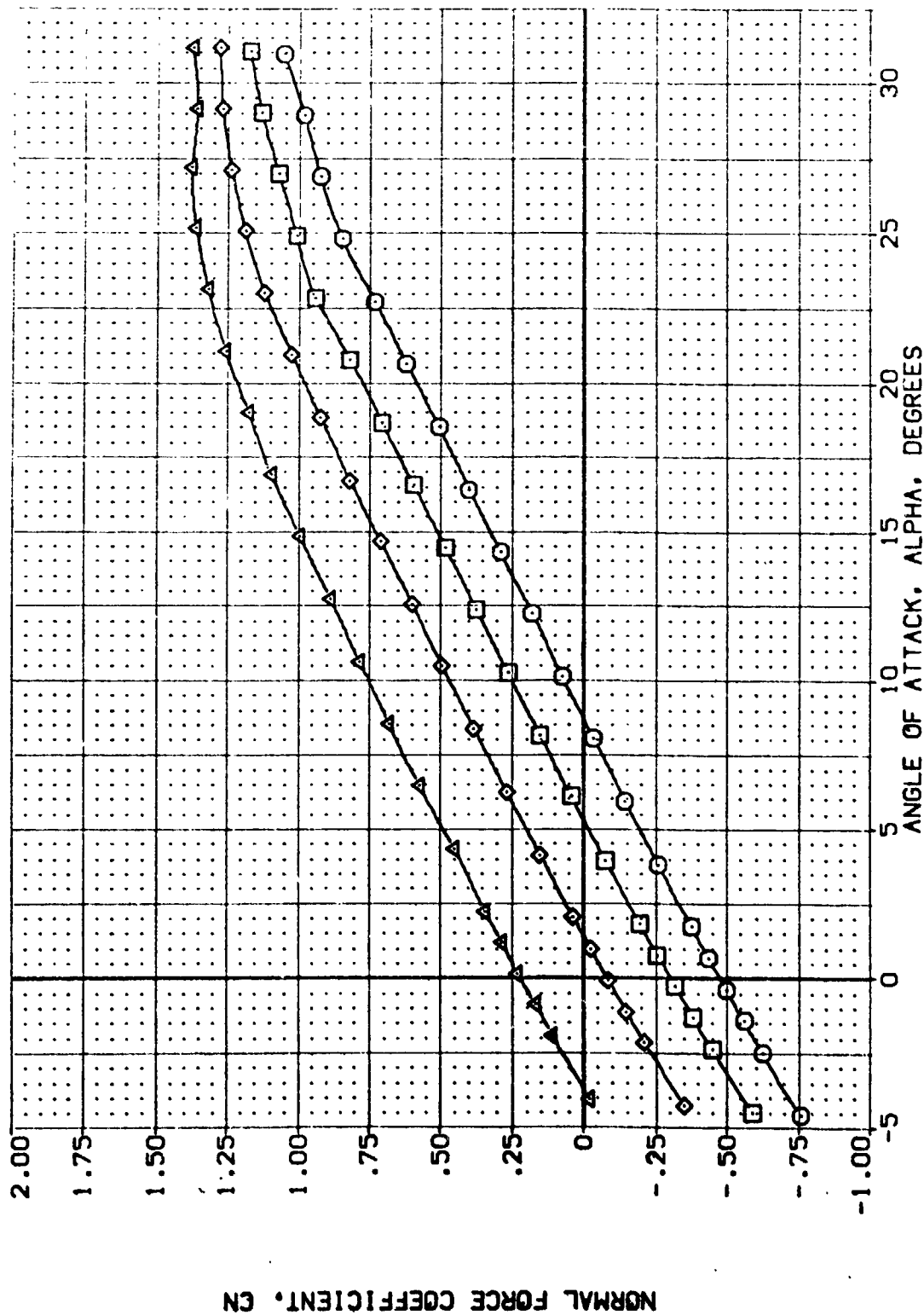


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02076)	QAS28 B26C9G SM7F 8J43V 16E28V65SX10	-20.000	.285	.000	-12.000	SREF 4.4119 SQ.FT.
(B02075)	QAS28 B26C9G SM7F 8J43V 16E28V65SX10	-10.000	.285	.000	-12.000	LREF 19.2289 INCHES
(B02073)	QAS28 B26C9G SM7F 8J43V 16E28V65SX10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
(B02074)	QAS28 B26C9G SM7F 8J43V 16E28V65SX10	15.000	.285	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

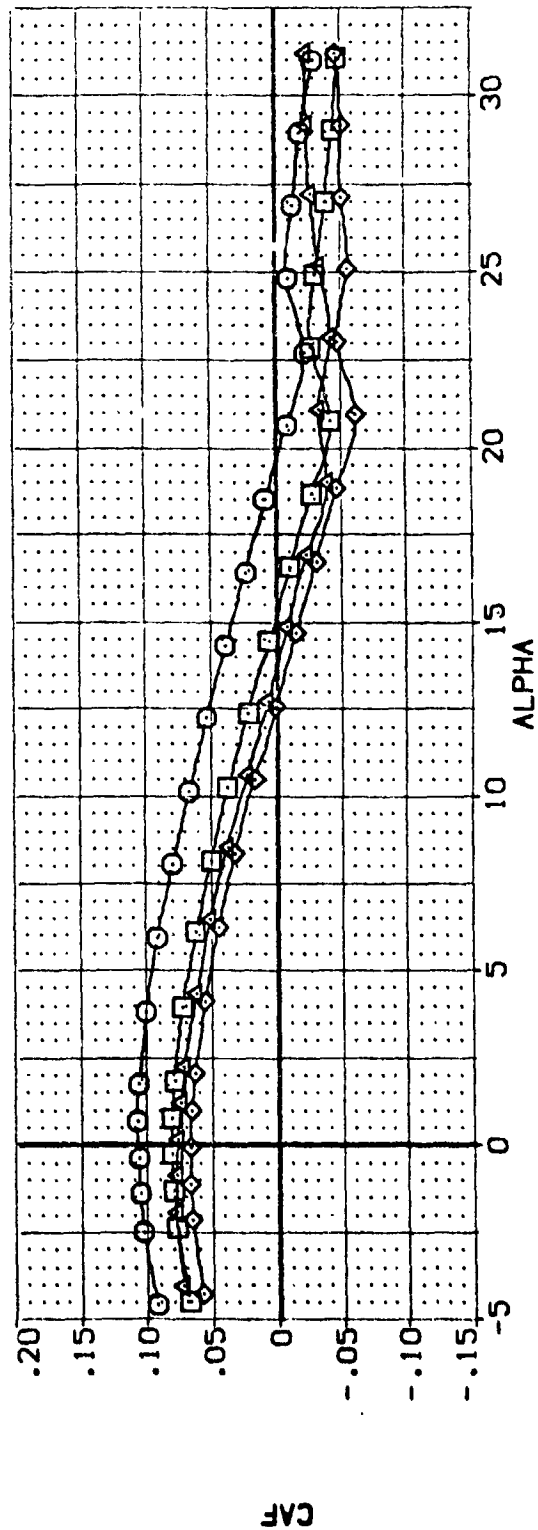
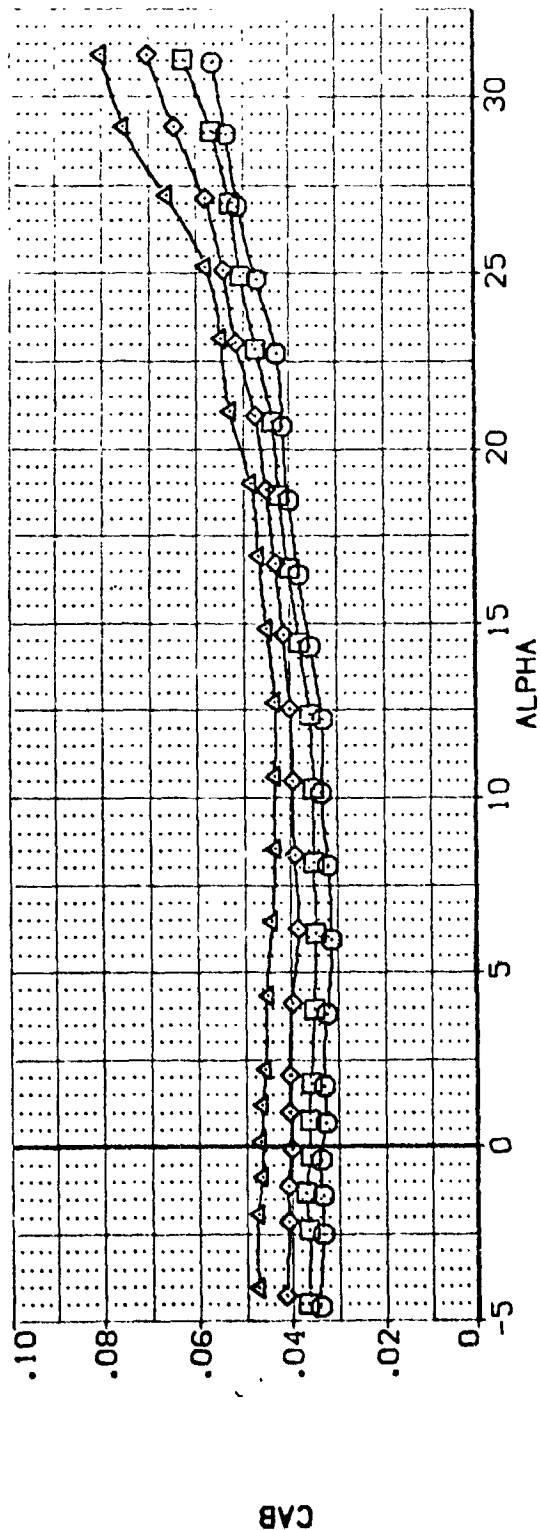


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802076)	DA628 B26C9G15M7F8J43V116E28V8R5X10	-20.000	.285	.000	-12.000	SREF 4.4119 SQ.FT.
(802075)	DA628 B26C9G15M7F8J43V116E28V8R5X10	-10.000	.285	.000	-12.000	LREF 19.2299 INCHES
(802073)	DA628 B26C9G15M7F8J43V116E28V8R5X10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
(802074)	DA628 B26C9G15M7F8J43V116E28V8R5X10	15.000	.285	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1873 INCHES
						SCALE .0405 INCHES

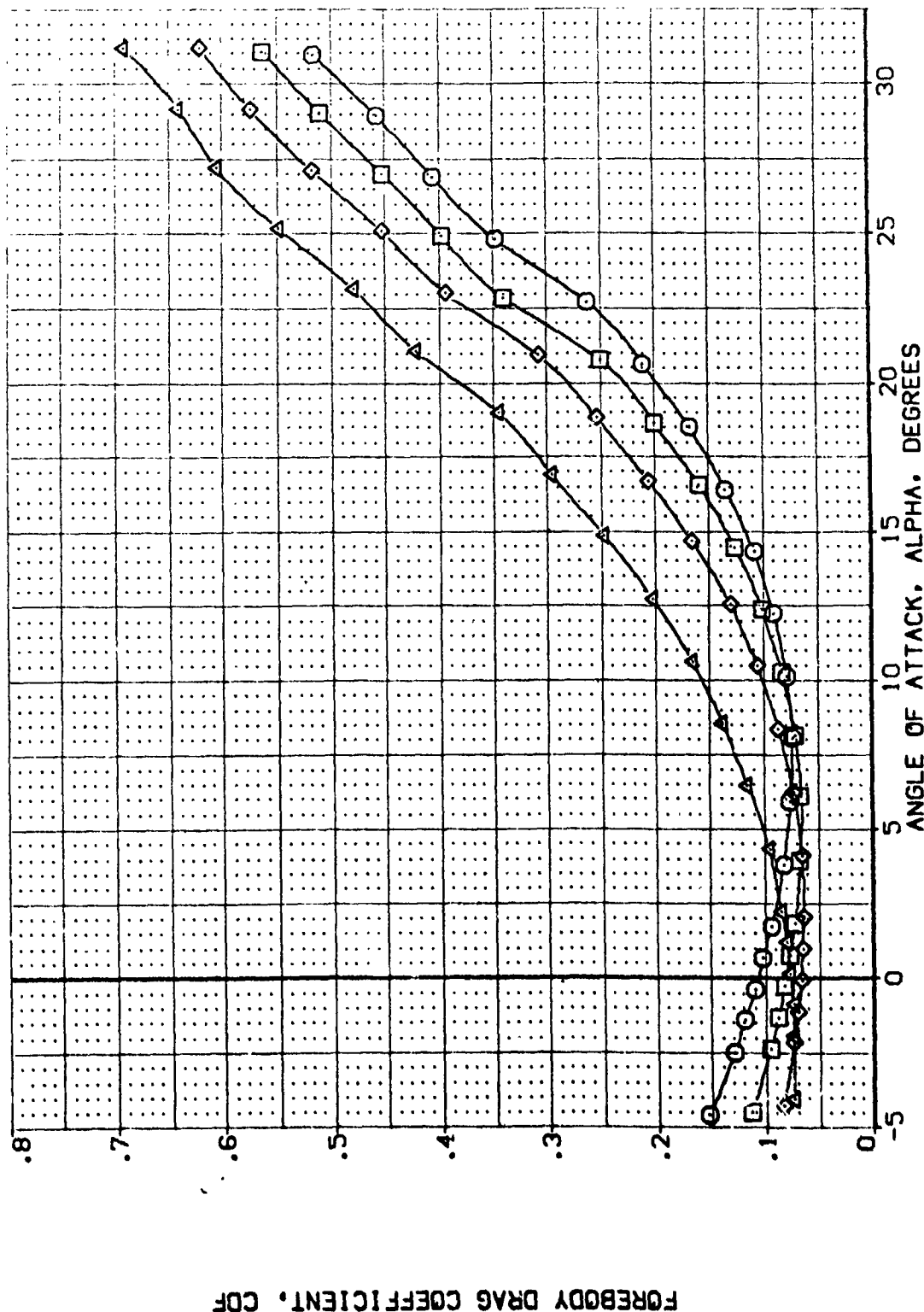


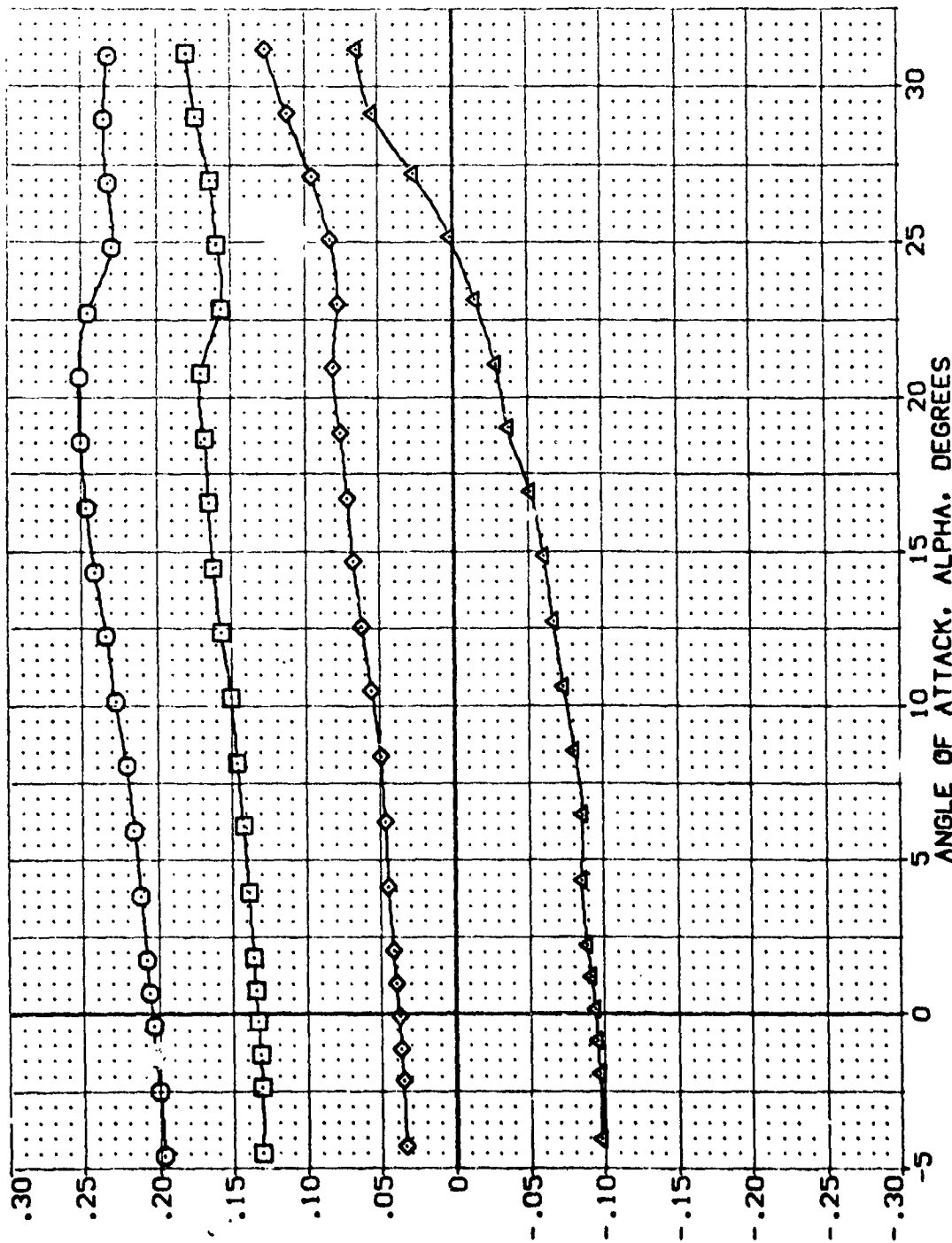
FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

(A)MACH = .20



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02076) QAS28 B26C3G1S47F8J43V116E28V8RSX10  
 (B02075) QAS28 B26C3G1S47F8J43V116E28V8RSX10  
 (B02073) QAS28 B26C3G1S47F8J43V116E28V8RSX10  
 (B02074) QAS28 B26C3G1S47F8J43V116E28V8RSX10

ELEVON H/BW SPOBRK BOFLAP REFERENCE INFORMATION  
 -20.000 .285 .000 -12.000 SREF 4.4119 SO.FT.  
 -10.000 .285 .000 -12.000 LREF 19.2299 INCHES  
 15.000 .285 .000 -12.000 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP 15.0000 INCHES  
 ZMRP 15.1975 INCHES  
 SCALE .0405



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FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02076) Q B26C9G1 SMTF 8J43W1 16E28V85X10  
 (B02075) X B26C9G1 SMTF 8J43W1 16E28V85X10  
 (B02073) Q B26C9G1 SMTF 8J43W1 16E28V85X10  
 (B02074) X B26C9G1 SMTF 8J43W1 16E28V85X10

ELEVON H/BW SPOBRK BOFLAP REFERENCE INFORMATION SQ.FT. INCHES  
 -20.000 .285 .000 -12.000 SREF 4.4119  
 -10.000 .285 .000 -12.000 LREF 19.2299  
 .000 .285 .000 -12.000 BREF 37.9359  
 15.000 .285 .000 -12.000 XMRP 43.5974  
 .000 .0000 YMRP 15.1875  
 .0000 ZMRP 15.1875  
 .0405 SCALE INCHES

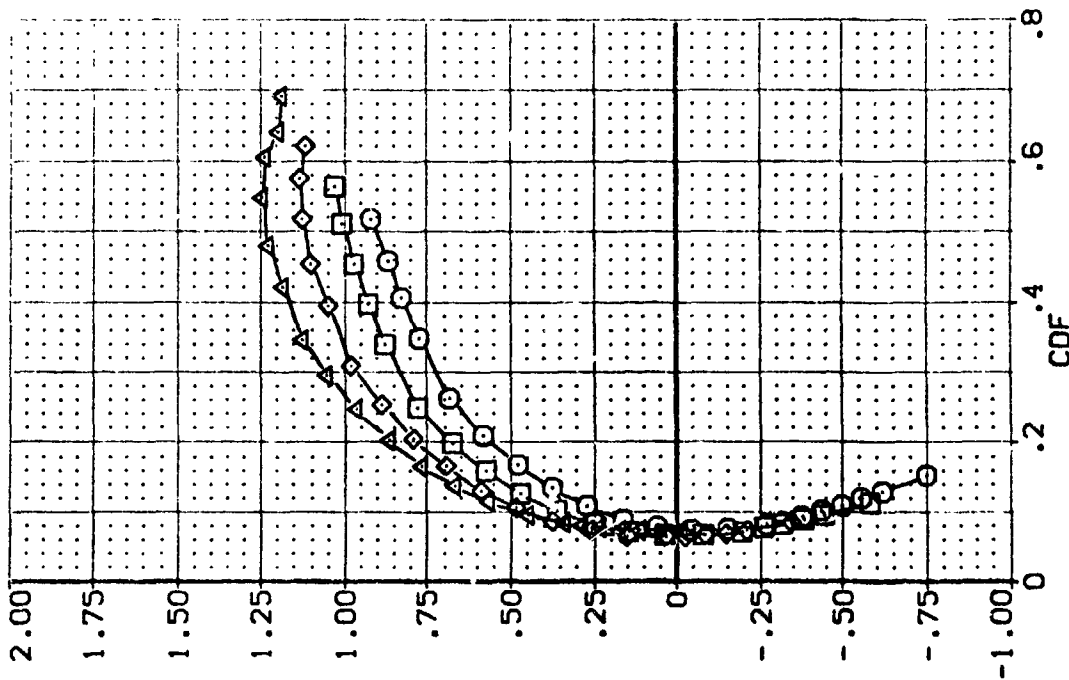
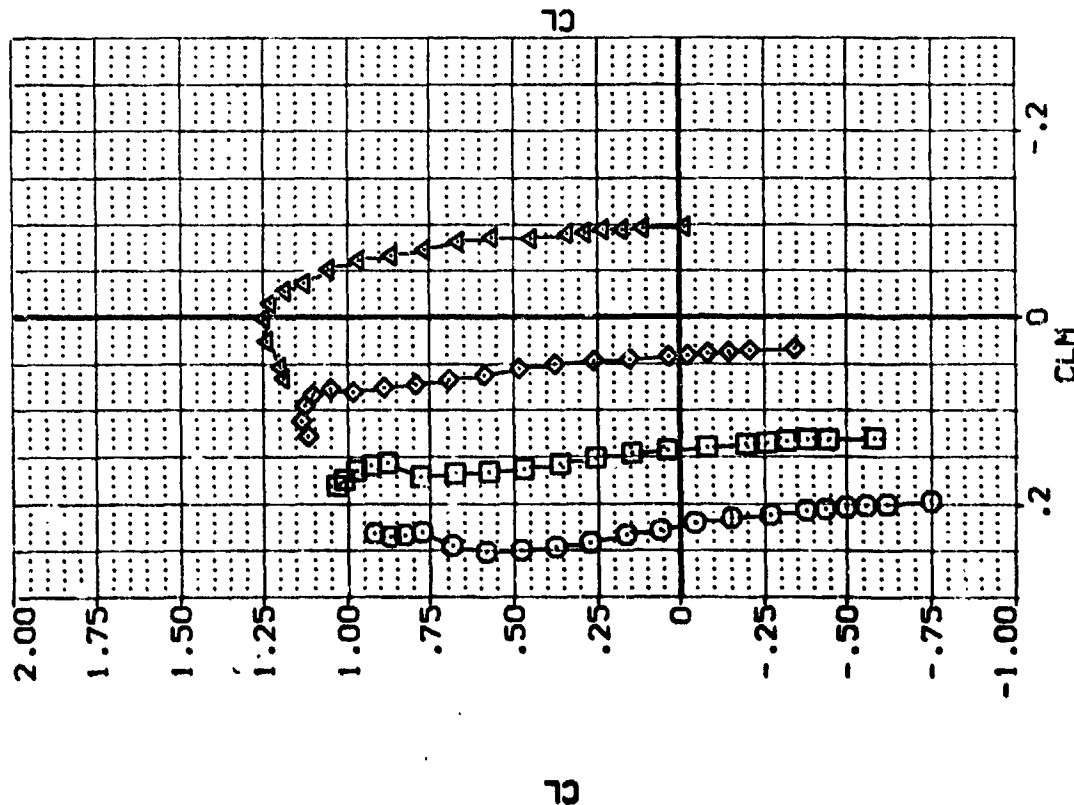


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BDFLAP	REFERENCE INFORMATION
(BD2076)	0A628 B26C9G1 SMTF 8/A 3V1 14E28V8PSX10	-20.000	.285	.000	-12.000	SREF 4.4119 SQ.FT
(BD2075)	0A628 B26C9G1 SMTF 8/A 3V1 14E28V8PSX10	-10.000	.285	.000	-12.000	LREF 19.2298 INCHES
(BD2073)	0A628 B26C9G1 SMTF 8/A 3V1 14E28V8PSX10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
(BD2074)	0A628 B26C9G1 SMTF 8/A 3V1 14E28V8PSX10	15.000	.285	.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

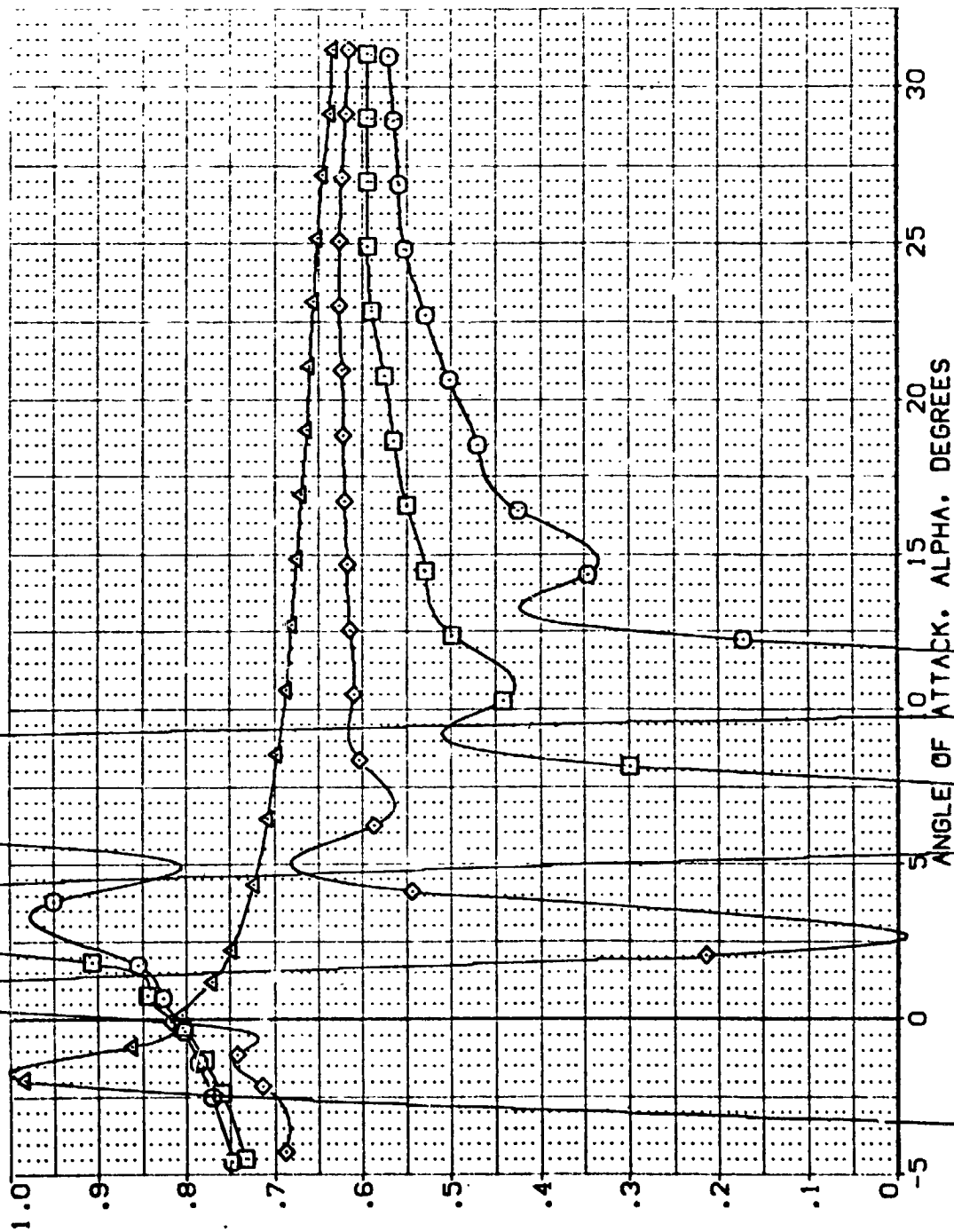


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802076)  0A628 B26C9G|547F8J43V||6E28V8R5X|0  
 (802075)  0A628 B26C9G|547F8J43V||6E28V8R5X|0  
 (802073)  0A628 B26C9G|547F8J43V||6E28V8R5X|0  
 (802074)  0A628 B26C9G|547F8J43V||6E28V8R5X|0

ELEVON H/BW SPOBRK BOFLAP  
 -20.000 .285 .000 -12.000  
 -10.000 .285 .000 -12.000  
 15.000 .285 .000 -12.000

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 YMRP 43.5974 INCHES  
 ZMRP .0000 INCHES  
 SCALE 15.1875 INCHES  
 .C405

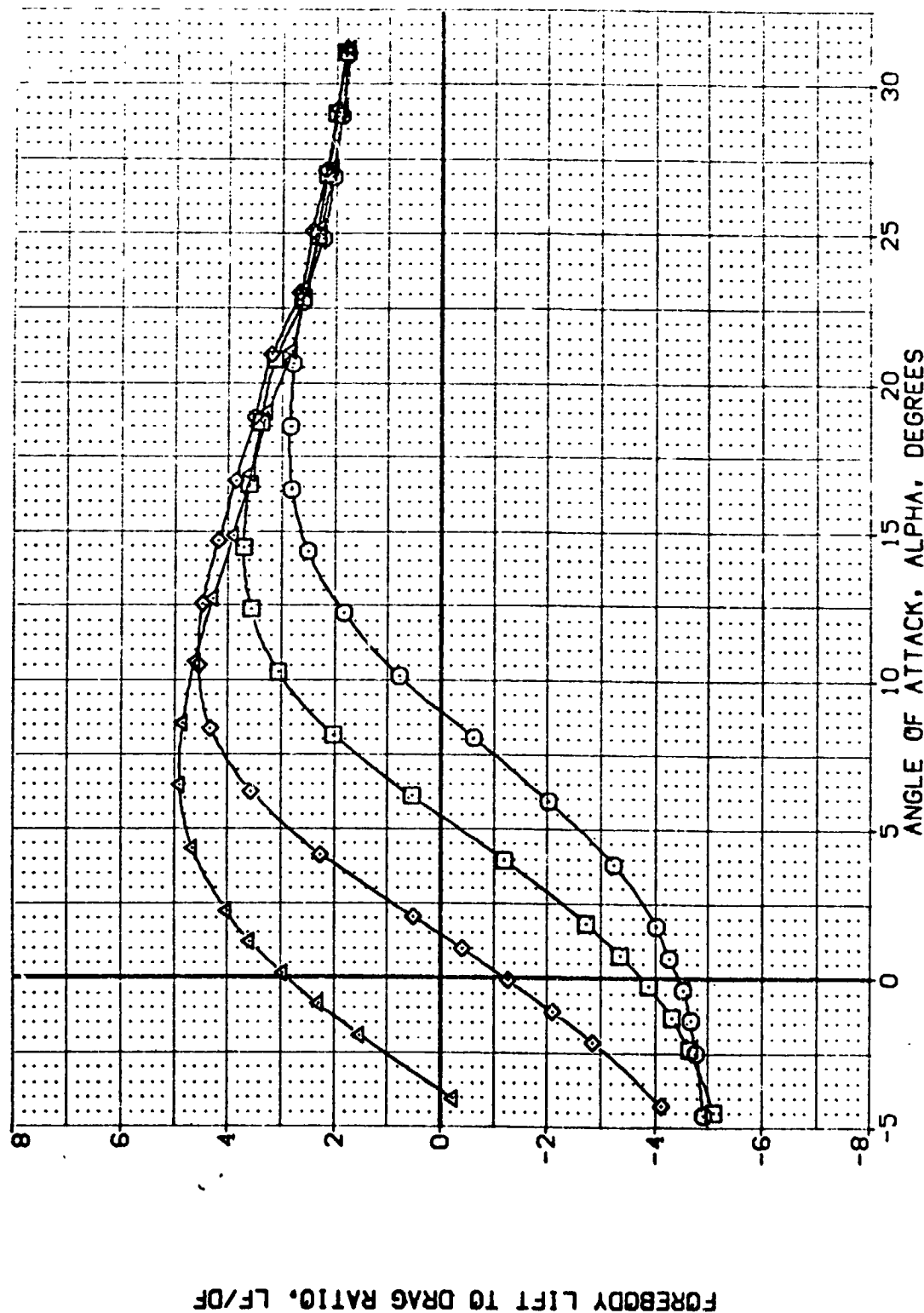


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PADDED ENGINES, H/BW = 0.285

(A)MACH = .20

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)  
 SYMBOL ALPHA .000  
 MACH .200  
 BDF. AP .000  
 RUDDER .000  
 W/BV .285  
 PARAMETRIC VALUES  
 BETA .000  
 AILRON .000  
 SPOBRK .000  
 DATA SOURCE  
 DELVON .000  
 DATASET 1DZ076  
 DATASET 1DZ074  
 DELVON -20.000  
 DELVON 15.000  
 REFERENCE INFORMATION  
 SREF 4.4119  
 LREF 19.2299  
 BREF 37.9359  
 XMRP 43.5974  
 YMRP .0000  
 ZMRP 15.1875  
 SCALE .0405  
 SO. FT. INCHES  
 INCHES INCHES  
 INCHES INCHES  
 INCHES INCHES

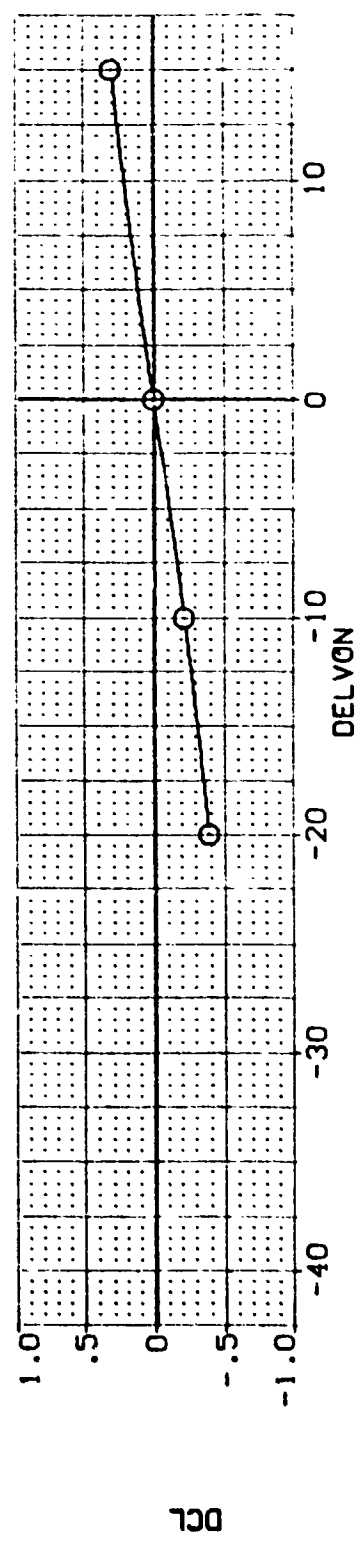
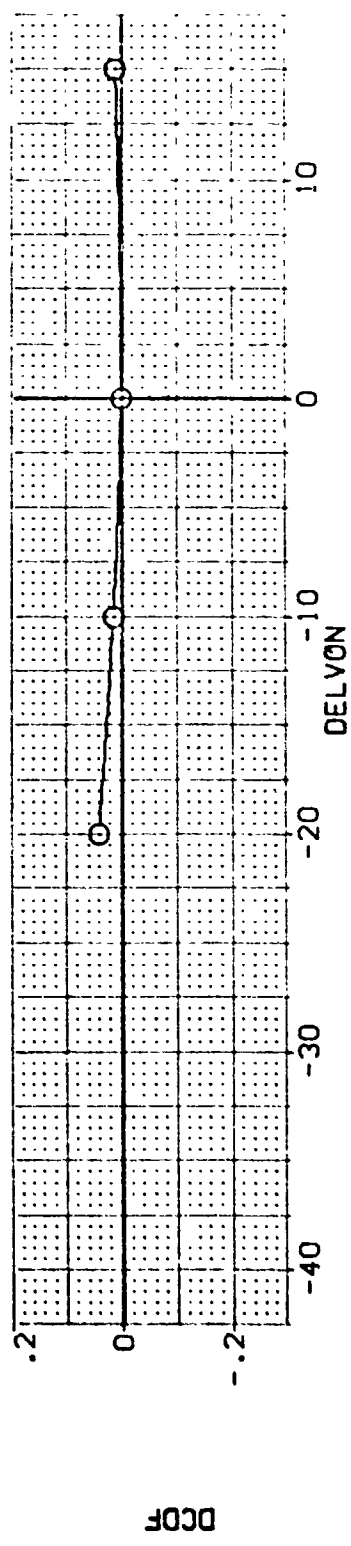
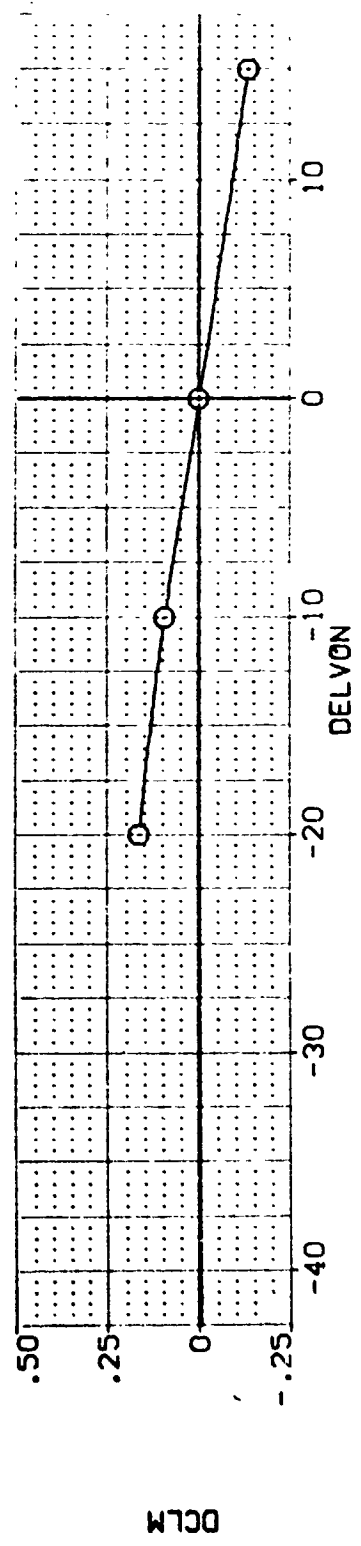


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

0A628 B26C9G15M7F8J43W116E28V8R5X10 (10Z076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	5.000	BOFLAP	.200 BETA	DELTON	4.4119
		RUDDER	-12.000 AILRON	DELTON	19.2299
		H/BW	.000 SPOBRK	DELTON	37.9359
			.000	DELTON	43.5974
			.285	DELTON	.0000
				DELTON	15.1875
				DELTON	.0405
				DELTON	SCALE

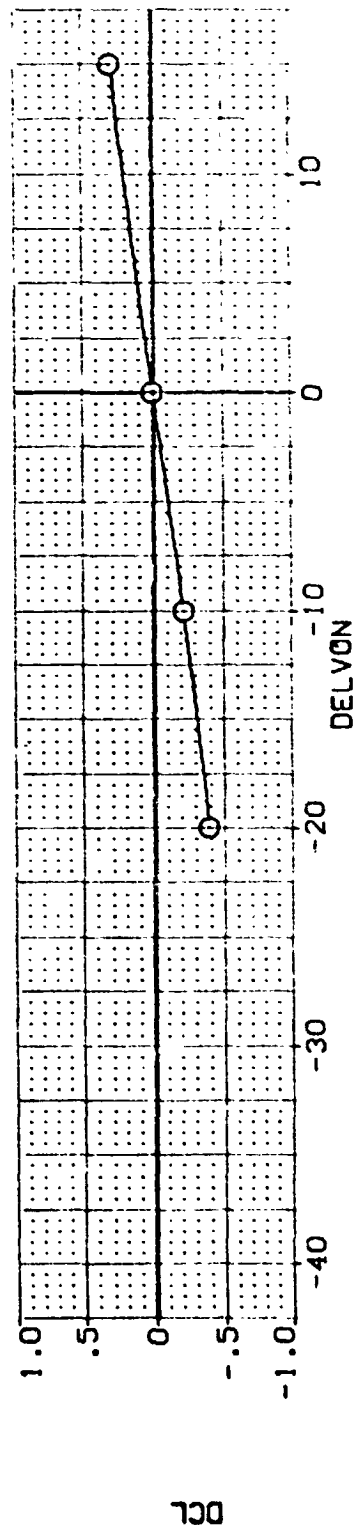
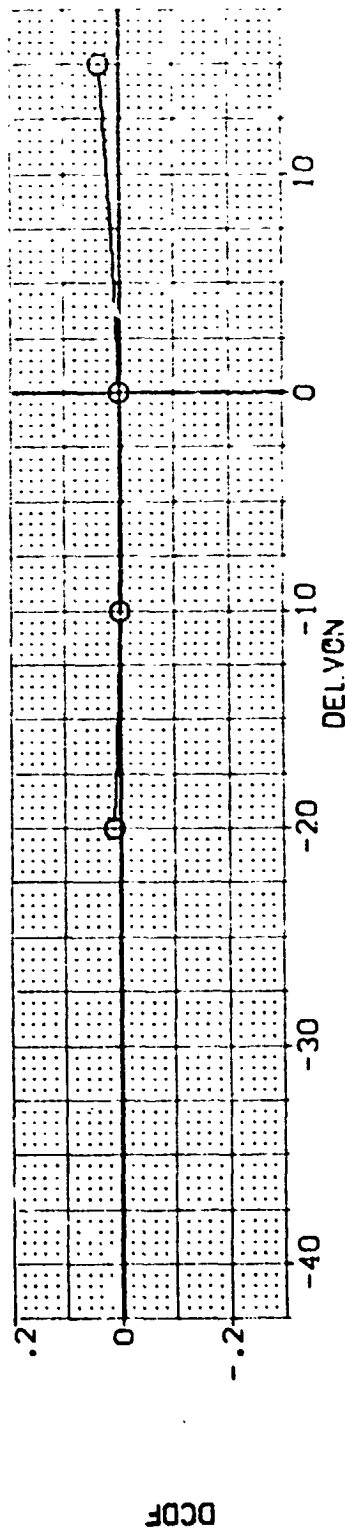
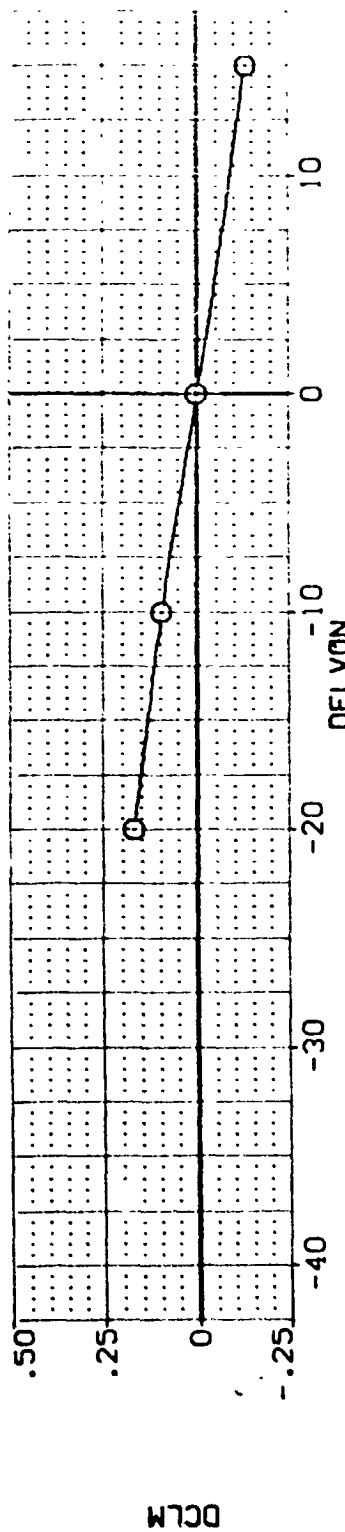


FIG 14 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.285



0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)

SYMBOL	ALPHA	MACH	BOFLAP	RUDDER	H/BW	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DEL VON	DATA SET	DEL VON	REFERENCE INFORMATION
○	10.000					BETA .200 AILRON -12.000 SPDRBK .000 H/BW .285	.000 IDZ076 .000 IDZ073 .000	10Z075 10Z074	-10.000 15.000	SREF LREF BREF XPRP YPRP ZPRP SCALE	4.4119 19.2299 37.9359 43.5974 15.0000 15.1875 .0405	SO.FT. INCHES INCHES INCHES INCHES INCHES INCHES SCALE

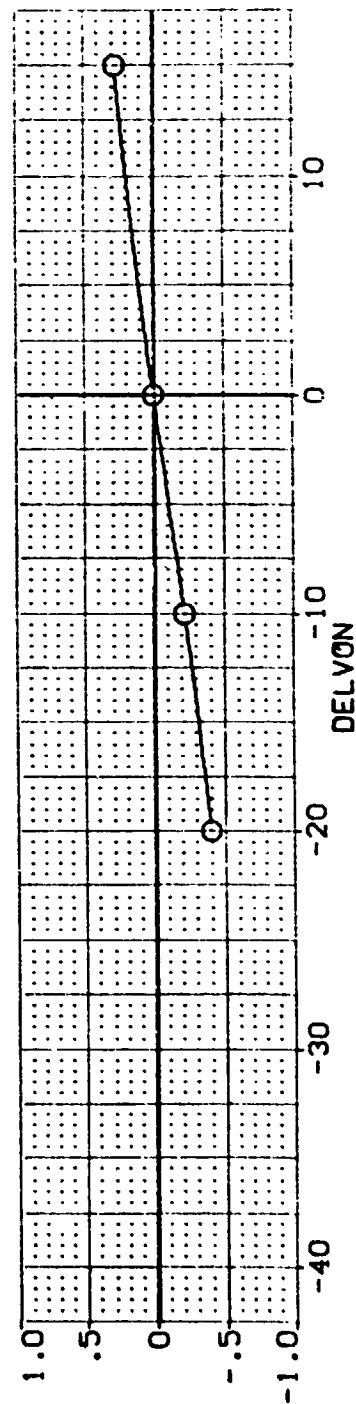
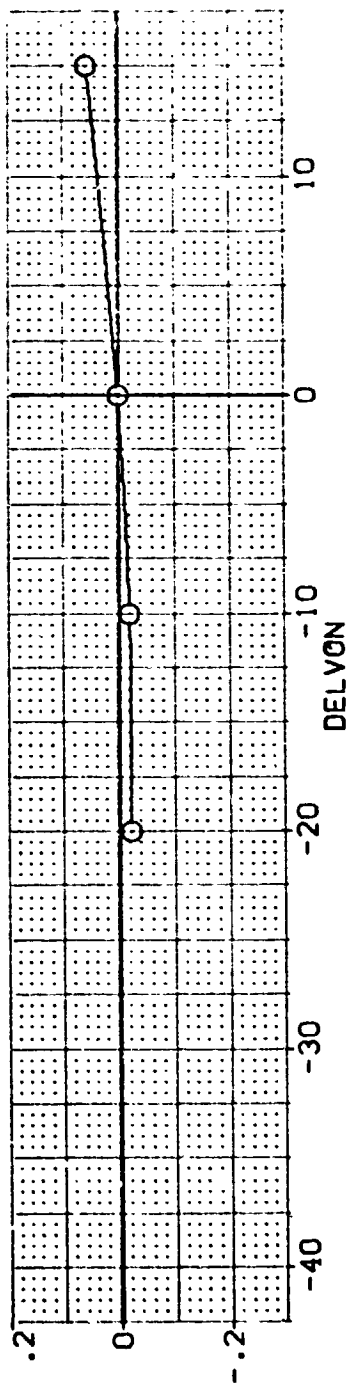
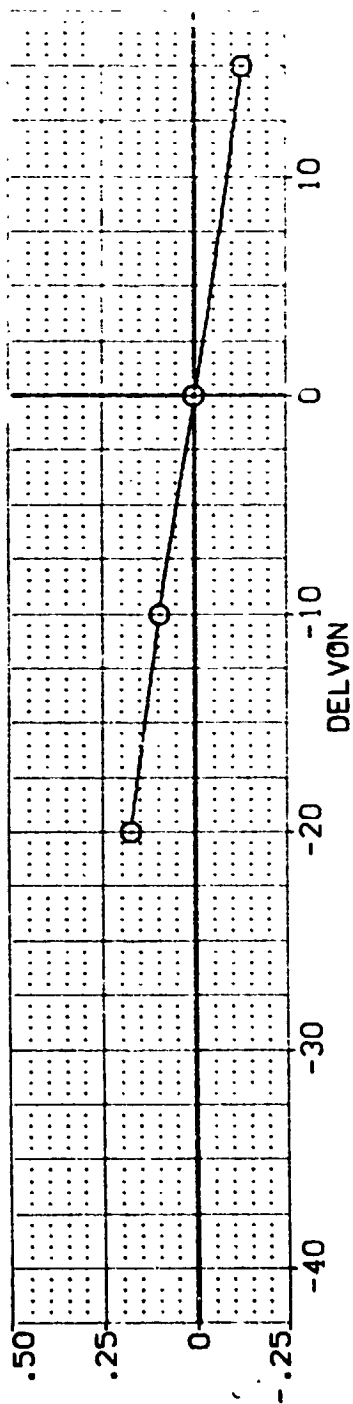


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

0A62B B26C9G15M7F8J43W116E28V8R5X10 (10Z076)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		MACH	BOFLAP	AILRON	BETA	.000	DATASET	DELVN	DATASET	DELVN	SREF
O	15.000						10Z076	-20.000	10Z075	-10.000	19.2299
		RUDDER		SPDRBK			10Z073	.000	10Z074	15.000	37.9359
		H/BW									43.5974
											.0000
											15.1875
											SCALE
											.0403

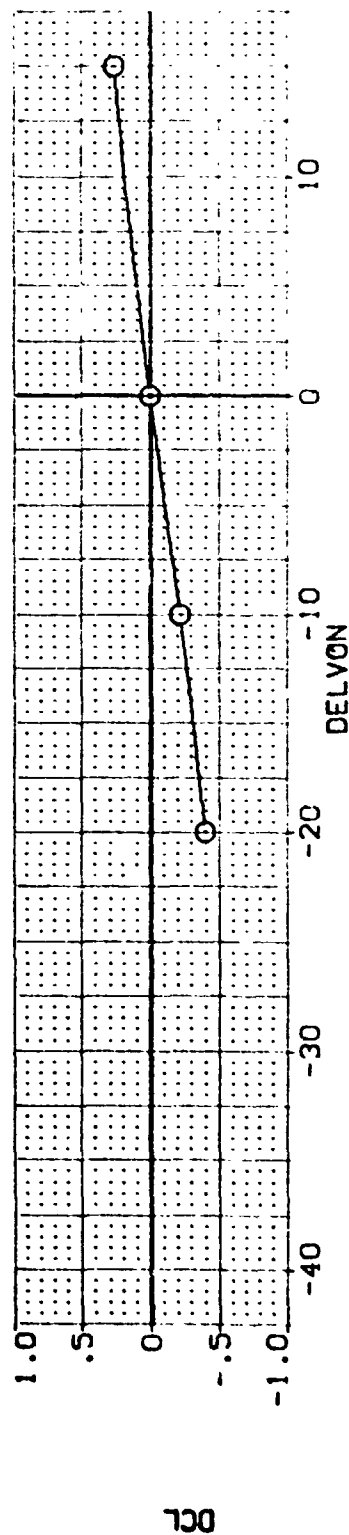
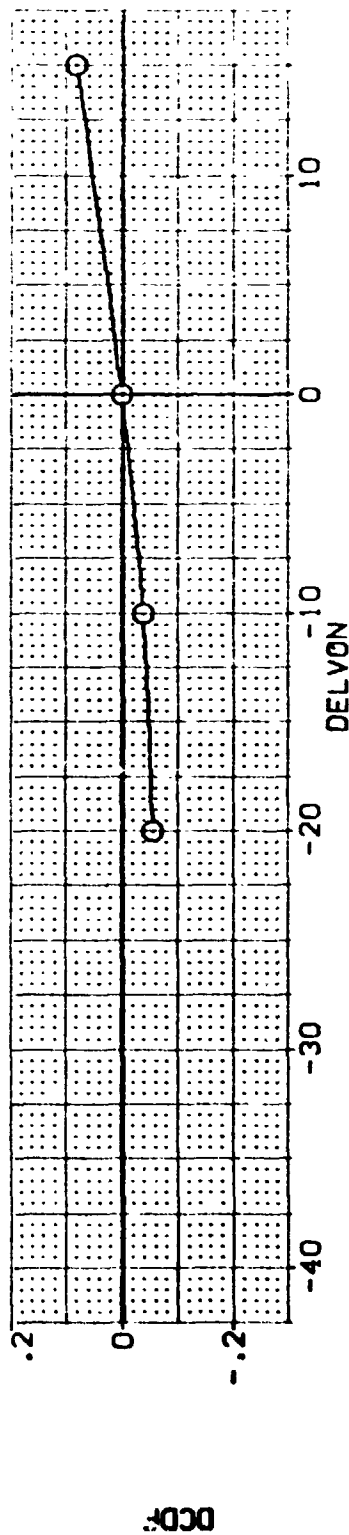
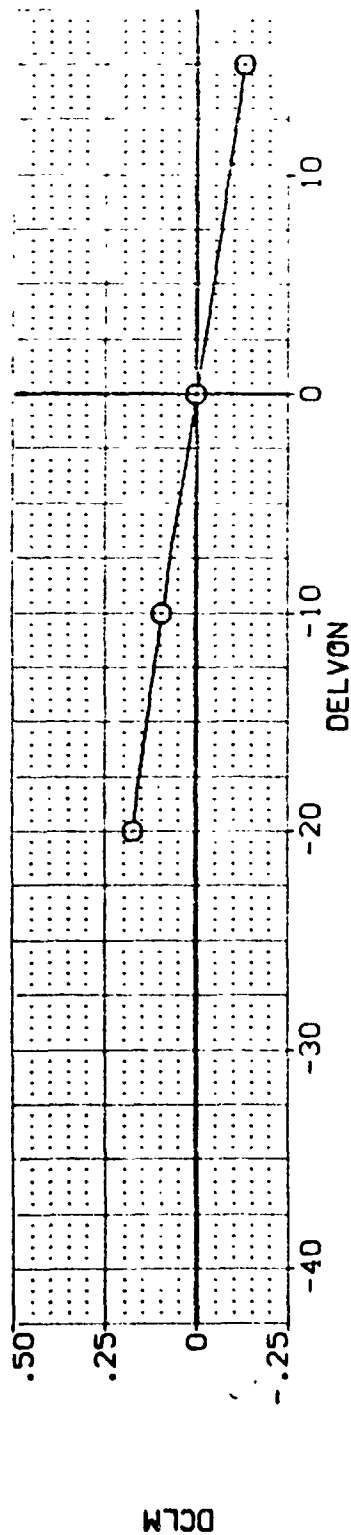


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285



0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DELTON	DELTON	REFERENCE INFORMATION
0	20.000		.200 BETA	.000	10Z076	-10.000	SREF	4.4119 SQ.FT.
		BOFLAP	-12.000 AILRON	.000	10Z075	15.000	LREF	19.2298 INCHES
		RUDER	.000 SPOBRK	.000	10Z074		BREF	37.9359 INCHES
		H/BV	.285				XMRP	43.5974 INCHES
							YMRP	.0000 INCHES
							ZMRP	15.1875 INCHES
							SCALE	.0405 INCHES

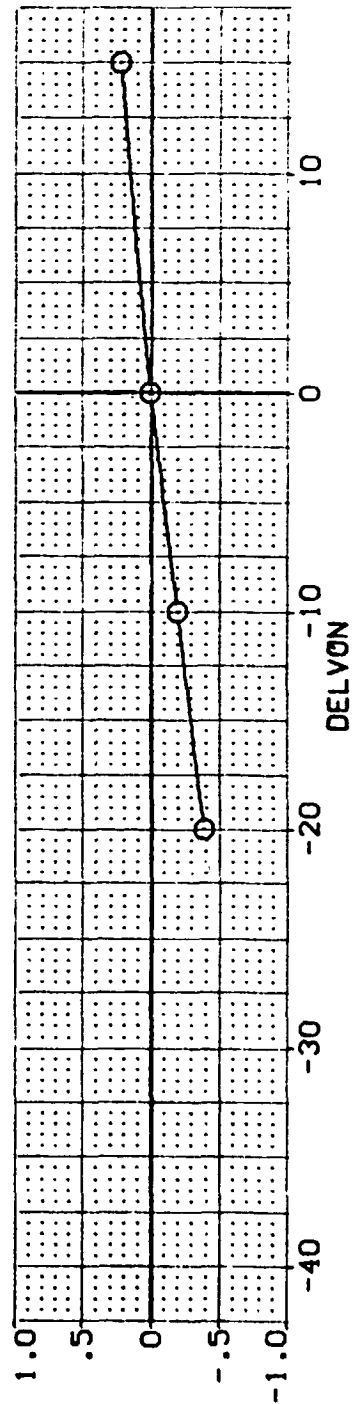
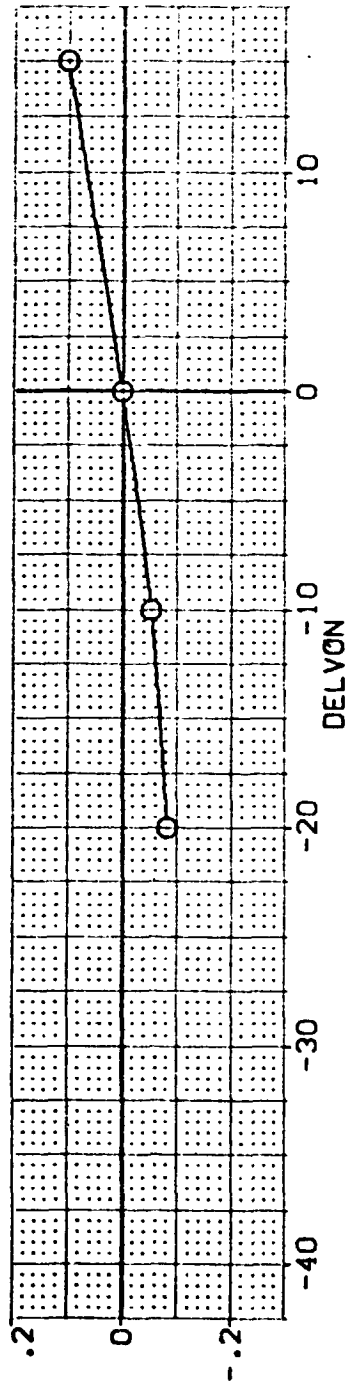
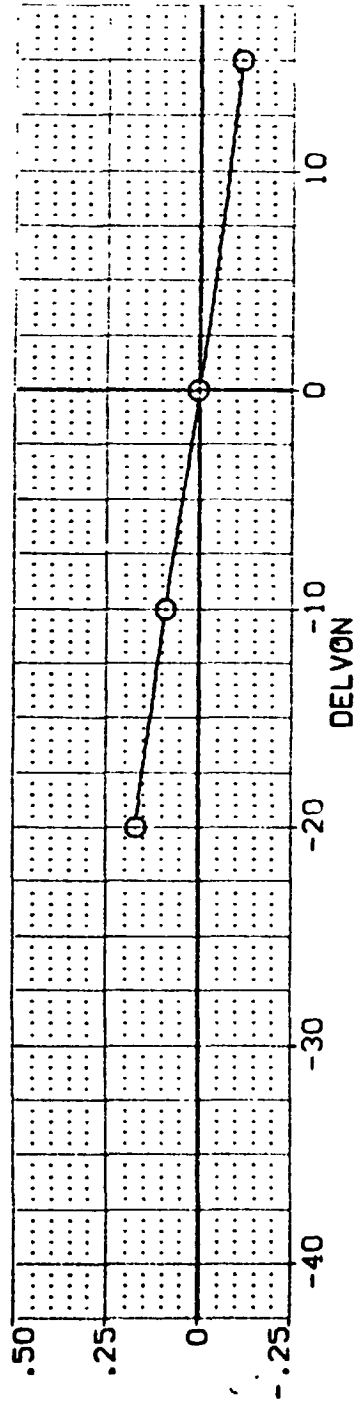


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

0A62B B26C9G15M7F8J43W116E28V8R5X10 (10Z076)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		MACH	BETA	AILRON	SPDRK	.000	DELTON	DELTON	SREF	SCALE	
0	25.000	BOFLAP	-12.000	AILRON	SPDRK	.000	DELTON	DELTON	LREF	INCHES	
		RUDER	.000	SPDRK		.000			BREF	INCHES	
		H/BV	.285						XMRP	INCHES	
									YMRP	INCHES	
									ZMRP	INCHES	
									SCALE	SCALE	
										15.1873	
										.0405	
										43.5974	
										37.9359	
										19.2293	
										4.4119	

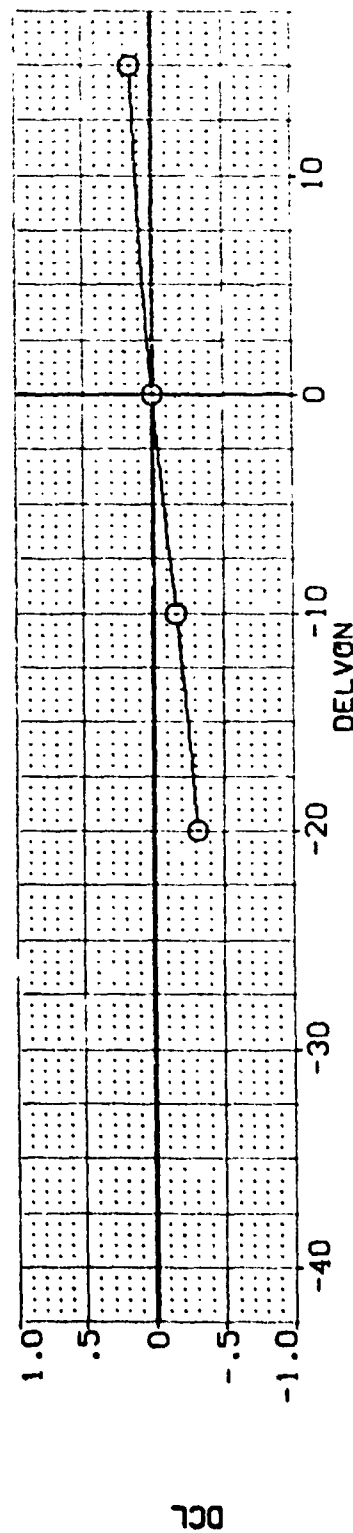
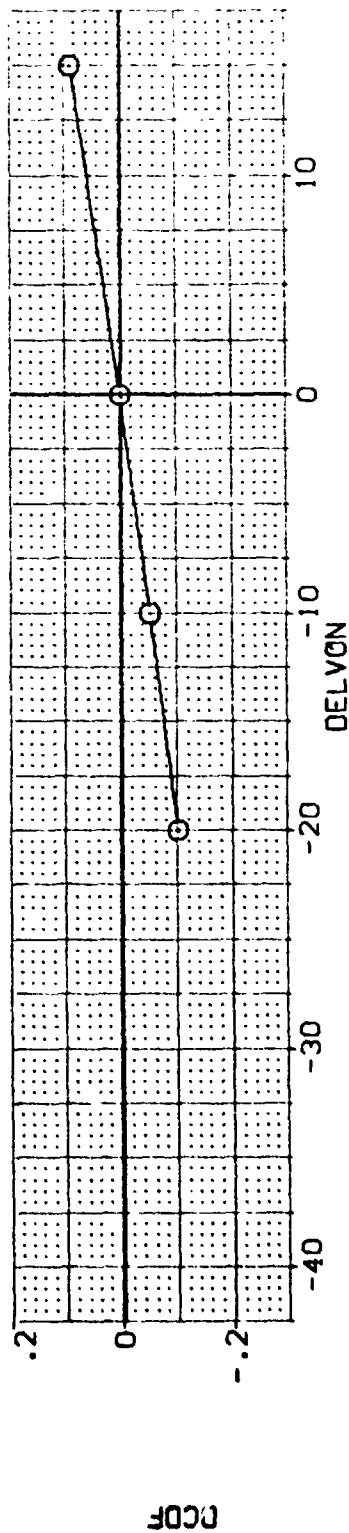
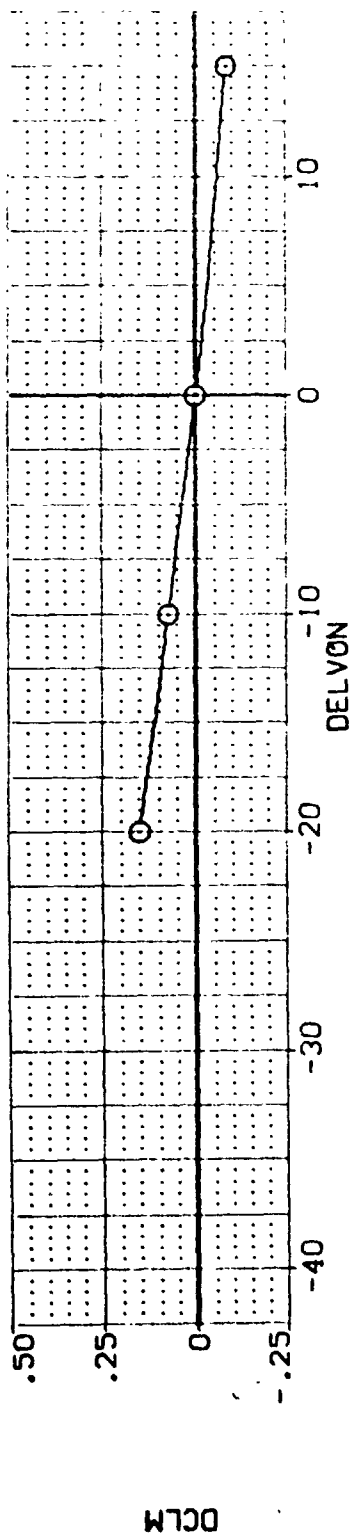


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)

SYMBOL		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○		30.000		MACH	.200	BETA		SREF	4.4119
				BOFLAP	-12.000	AILRON		LREF	19.2299
				RUDDER	.000	SPDRX		BREF	37.9359
				H/BW	.285			XMRP	43.5974
								YMRP	.0000
								ZMRP	15.1875
								SCALE	.0405

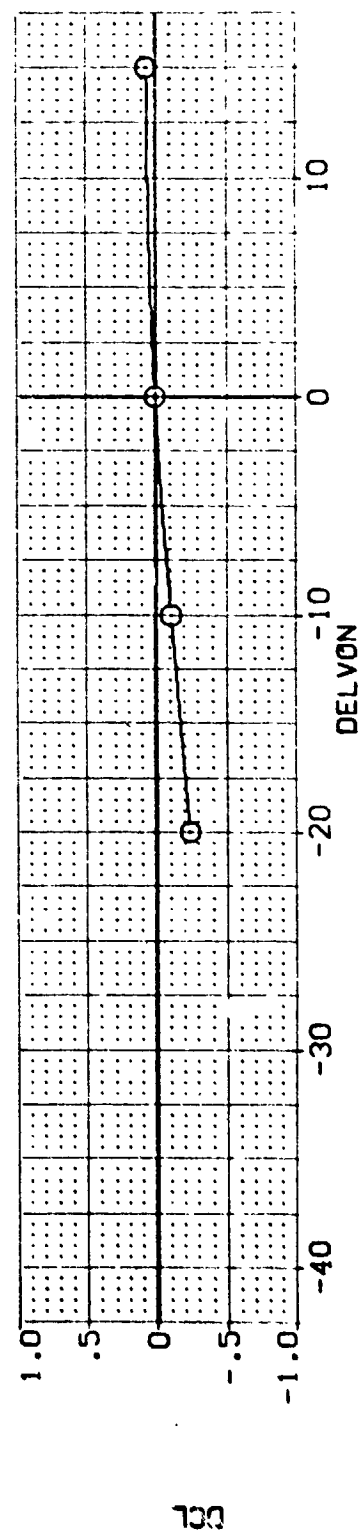
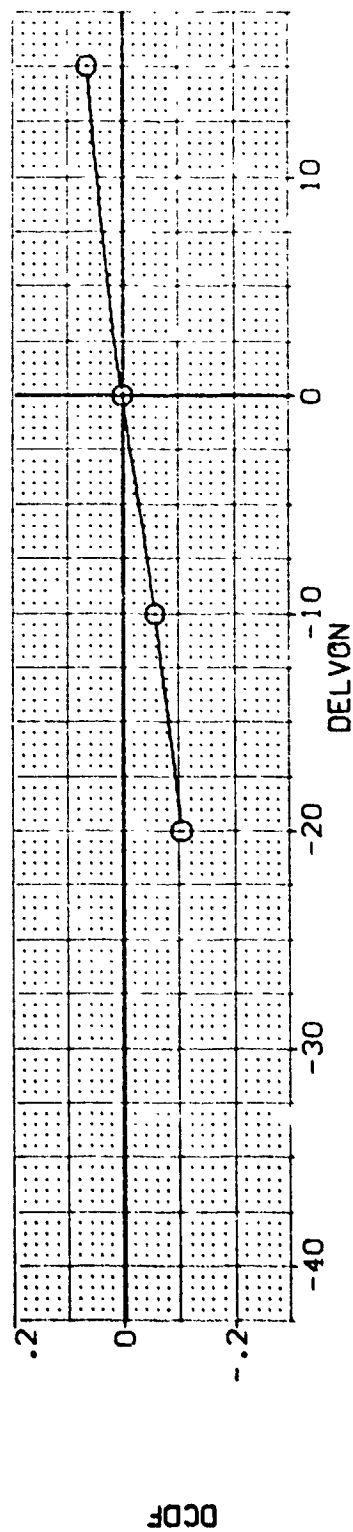
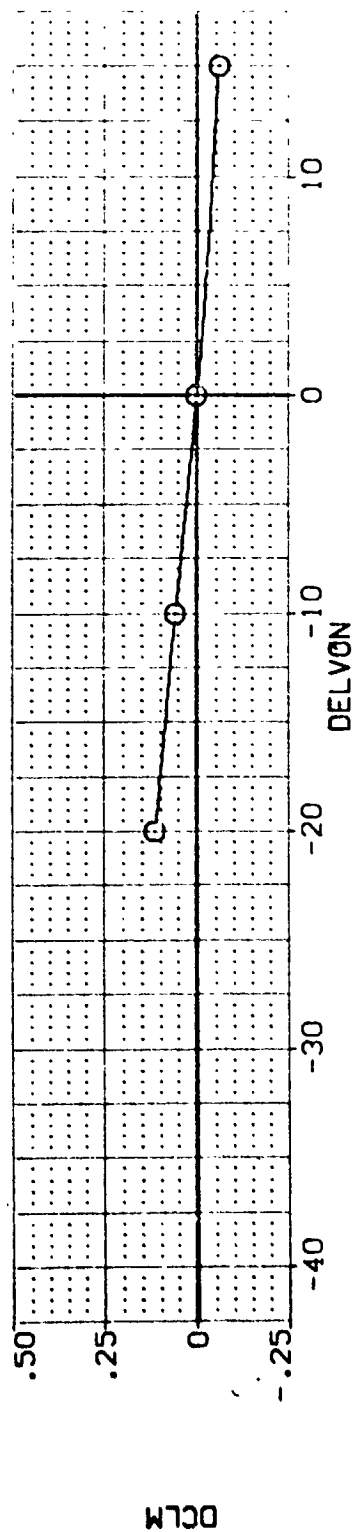


FIG 14 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.285

0A62B B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	.000		.700 BETA	DELTON	SQ.FT. 4.4119
			-12.000 AILRON	DELTON	LREF 19.2299
			.000 SPOBRK	DELTON	BREF 37.9359
				DELTON	XREF 43.5974
				DELTON	YREF .0000
				DELTON	ZREF 15.1875
				DELTON	SCALE .0405

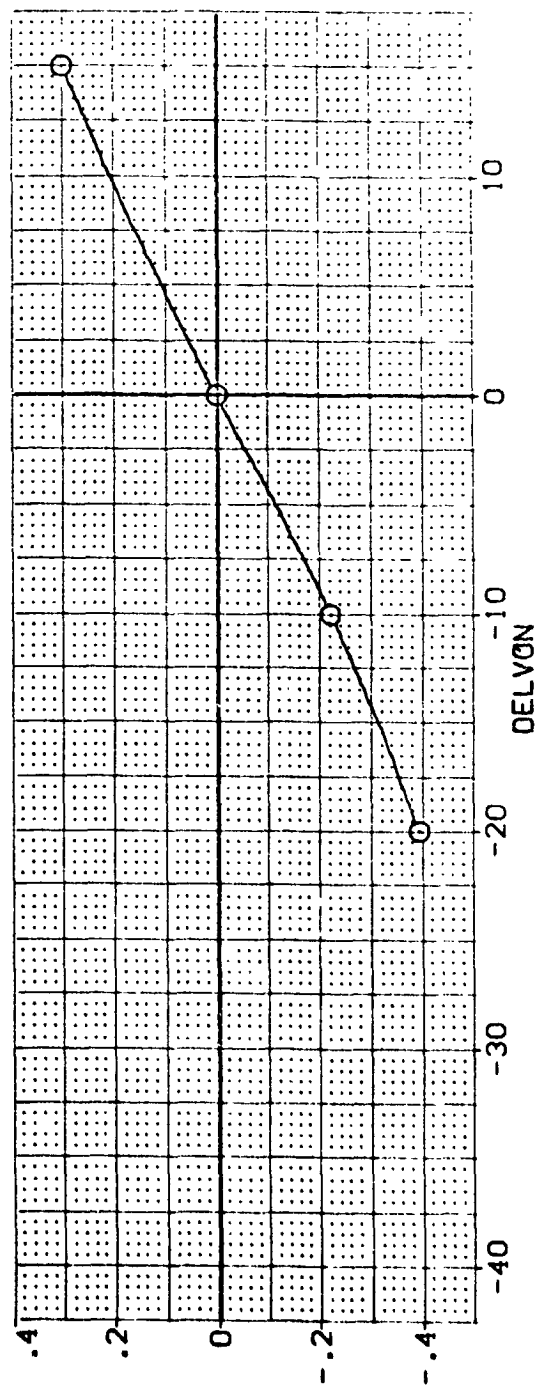
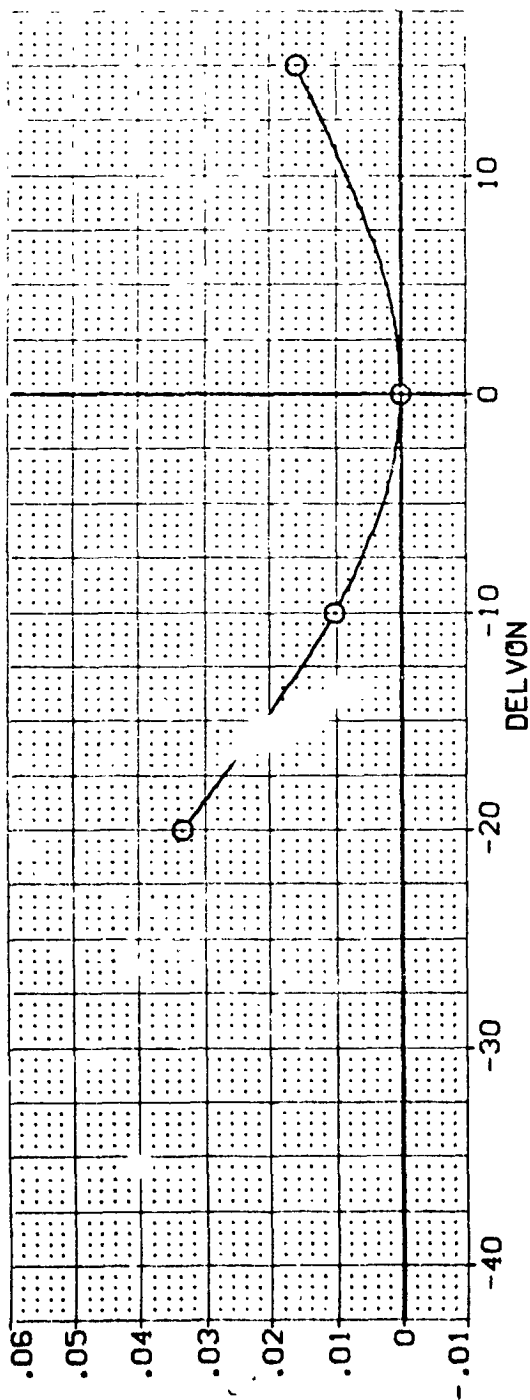


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES,  $H/BW = 0.285$

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	5.000	BOFLAP	.200 BETA	.000 DATASET	SREF 4.4119 SQ.FT.
		RUDDER	-12.000 AILRON	.000 IDZ076	LREF 19.2289 INCHES
		H/BV	.000 SPOBRK	.000 IDZ074	BREF 37.9359 INCHES
			.285	.000	XMRP 43.5974 INCHES
					YMRP 15.0000 INCHES
					ZMRP 15.1875 INCHES
					SCALE .0405

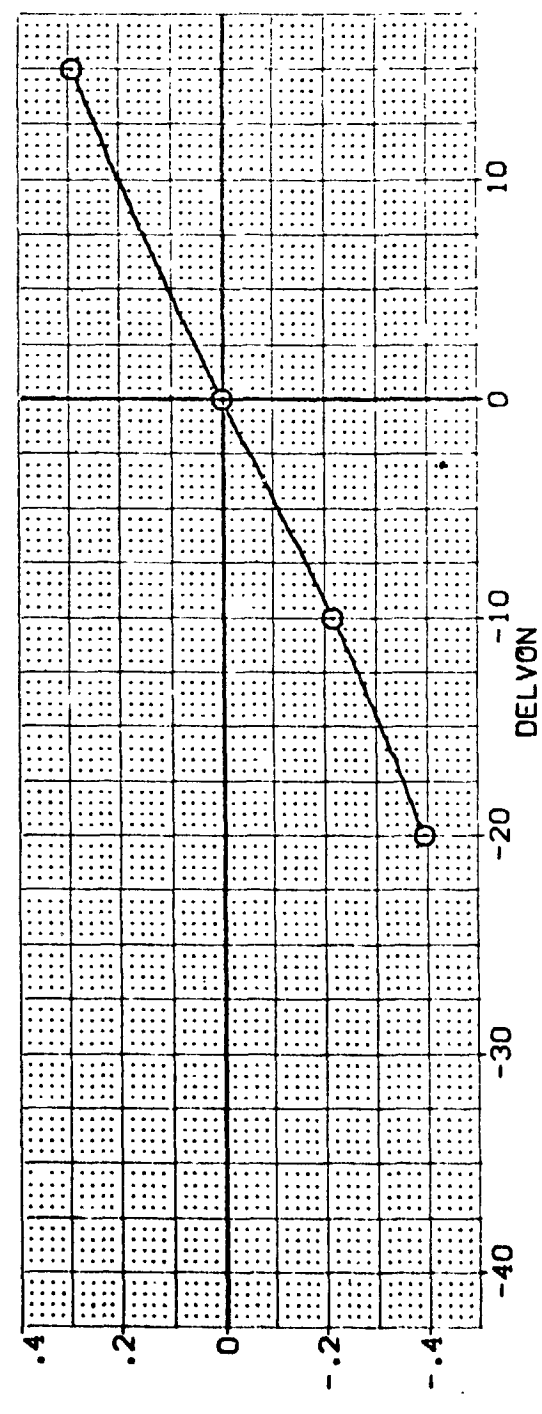
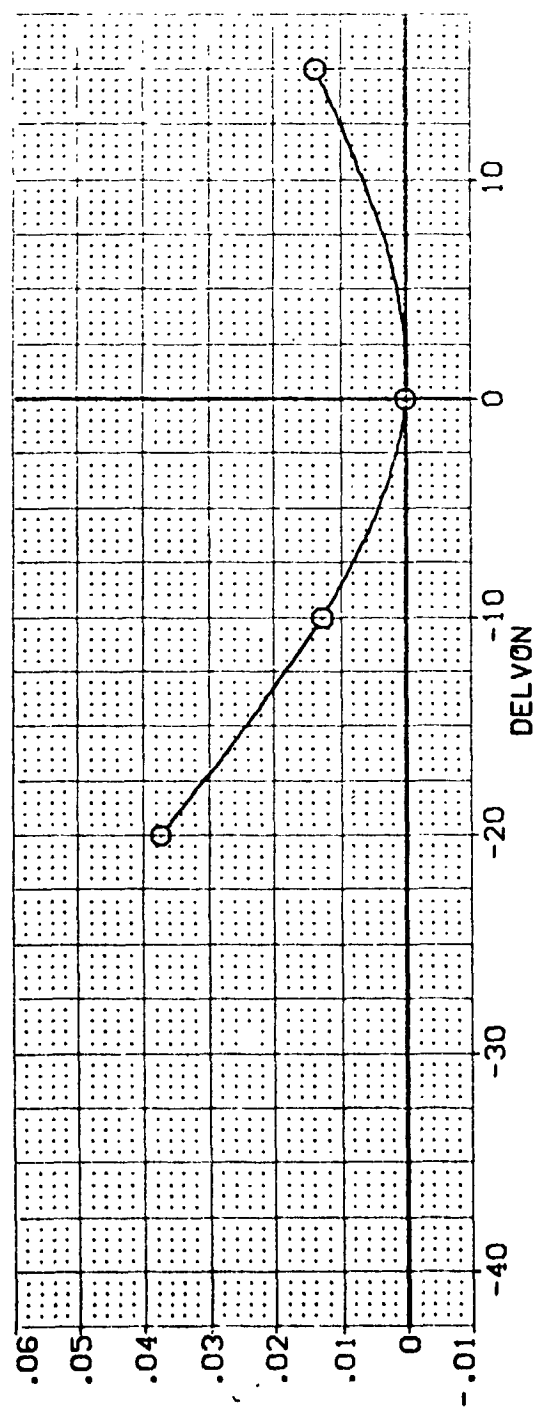


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	AILRON	SPDRK	.000	DELTON	DELTON	DELTON	SREF	SO.FT.	INCHES	INCHES
O	10.000	SOFLAP	-12.000	AILRON	SPDRK	.000	DELTON	DELTON	DELTON	LREF	4.4119	19.2299	37.9359
		RUDER	.000	SPDRK		.000	DELTON	DELTON	DELTON	BREF	43.5974	43.5974	43.5974
		H/BW	.285				DELTON	DELTON	DELTON	YMRP	15.1875	15.1875	15.1875
							DELTON	DELTON	DELTON	ZMRP			
							DELTON	DELTON	DELTON	SCALE			

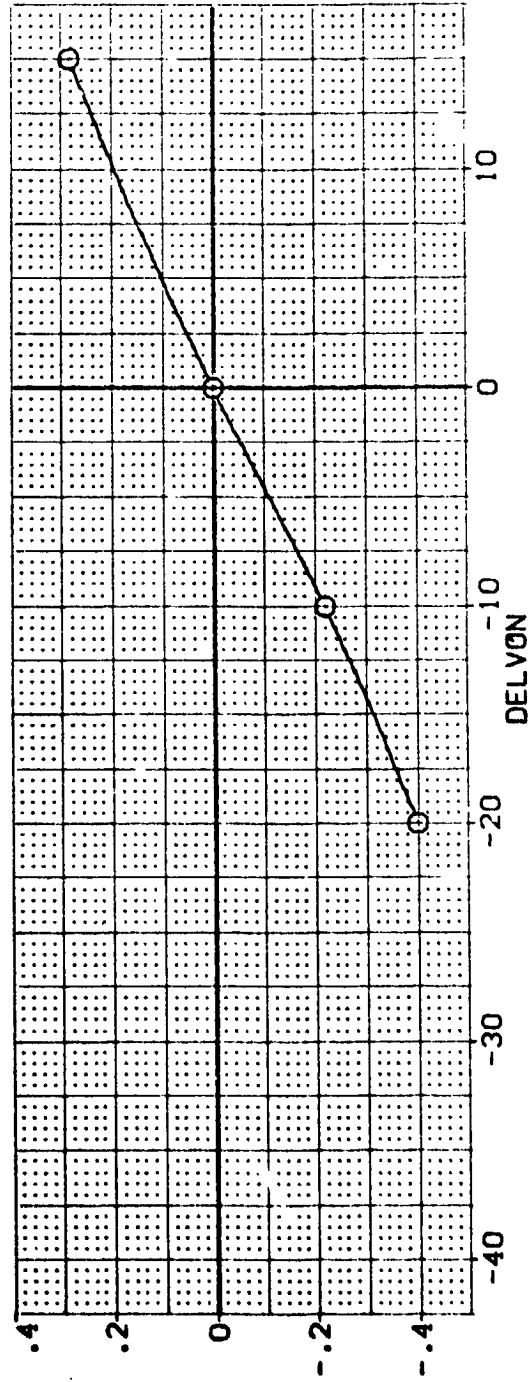
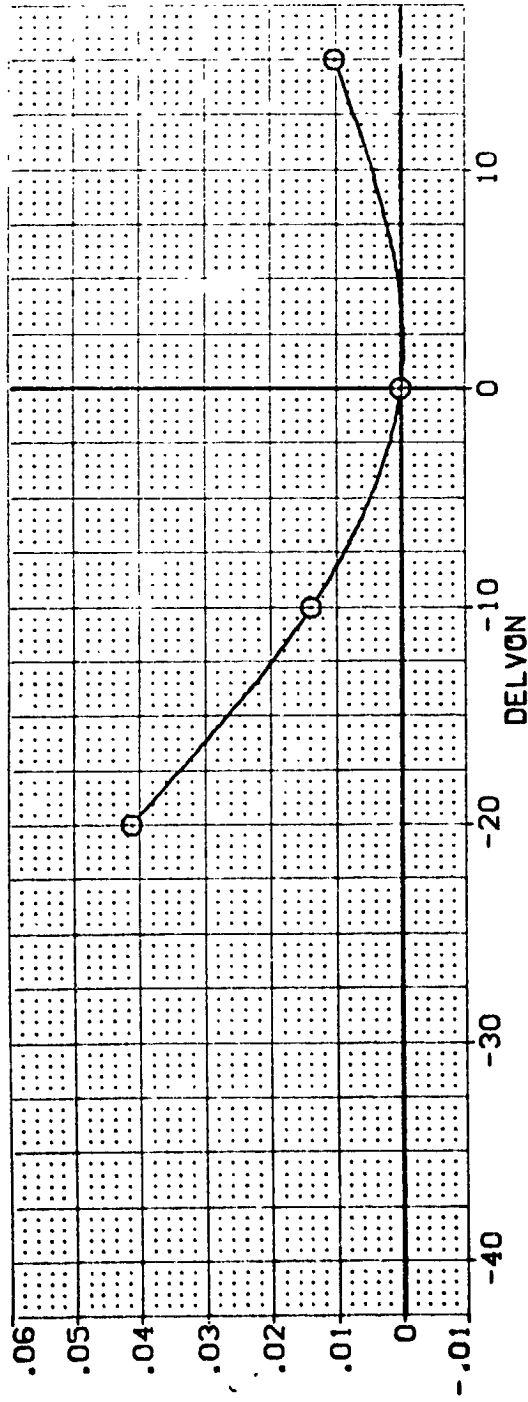


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DELTON	SREF	REFERENCE INFORMATION
○	15.000	BOFLAP	.200	.000	IDZ076	-10.000	LREF	4.4119
		RUDER	-12.000	.000	IDZ073	15.000	BREF	19.2299
		H/BW	.000	.000			XMRP	37.9359
			.285				YMRP	43.5974
							ZMRP	.0000
							SCALE	15.1875
								INCHES
								INCHES
								INCHES
								INCHES
								SCALE

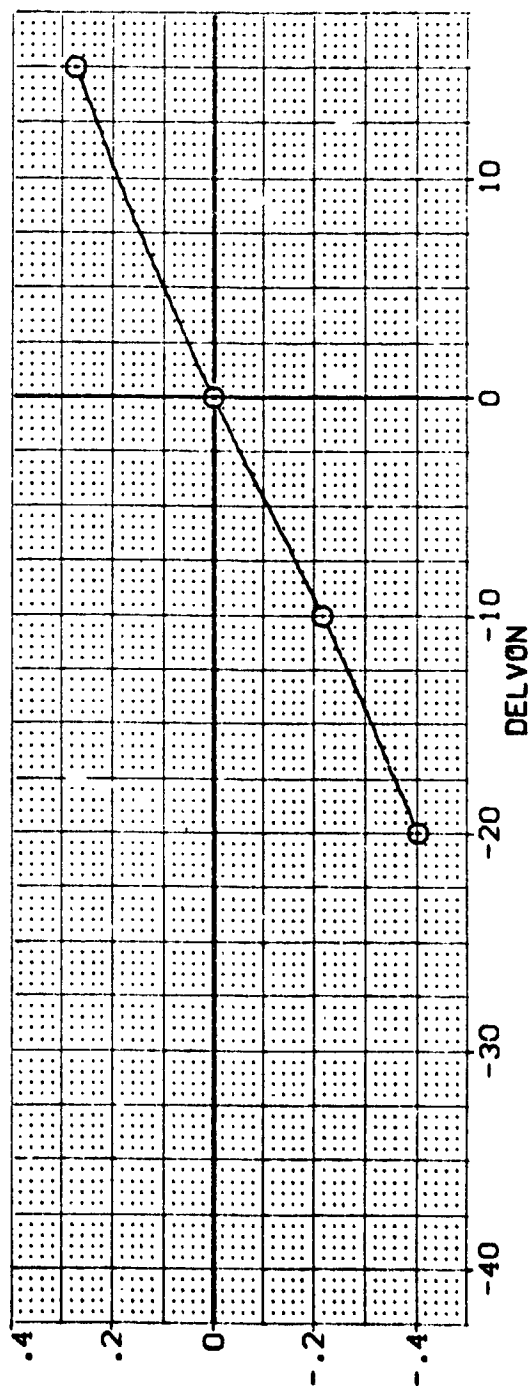
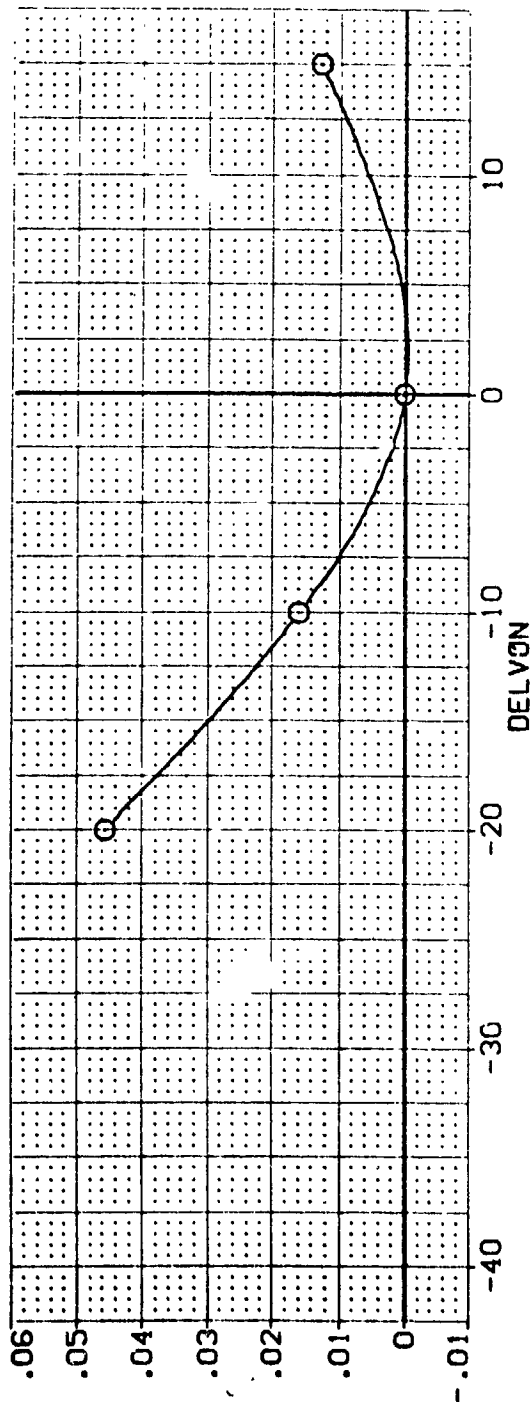


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES,  $H/BW = 0.285$

0A628 B26C9G15M7F8J43W116E28V8R5X10 (1DZ076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELVN	SREF	REFERENCE INFORMATION
0	20.000							SQ.FT.
		BOFLAP	.200 BETA	.000 DATASET	1DZ076	-10.000	LREF	INCHES
		RUDDER	-12.000 AILRON	.000 IDZ076	1DZ075	5.000	BREF	INCHES
		H/BW	.000 SPOBRK	.000 IDZ073	1DZ074		XTRP	INCHES
			.285				YTRP	INCHES
							ZTRP	INCHES
							SCALE	SCALE
								.0405

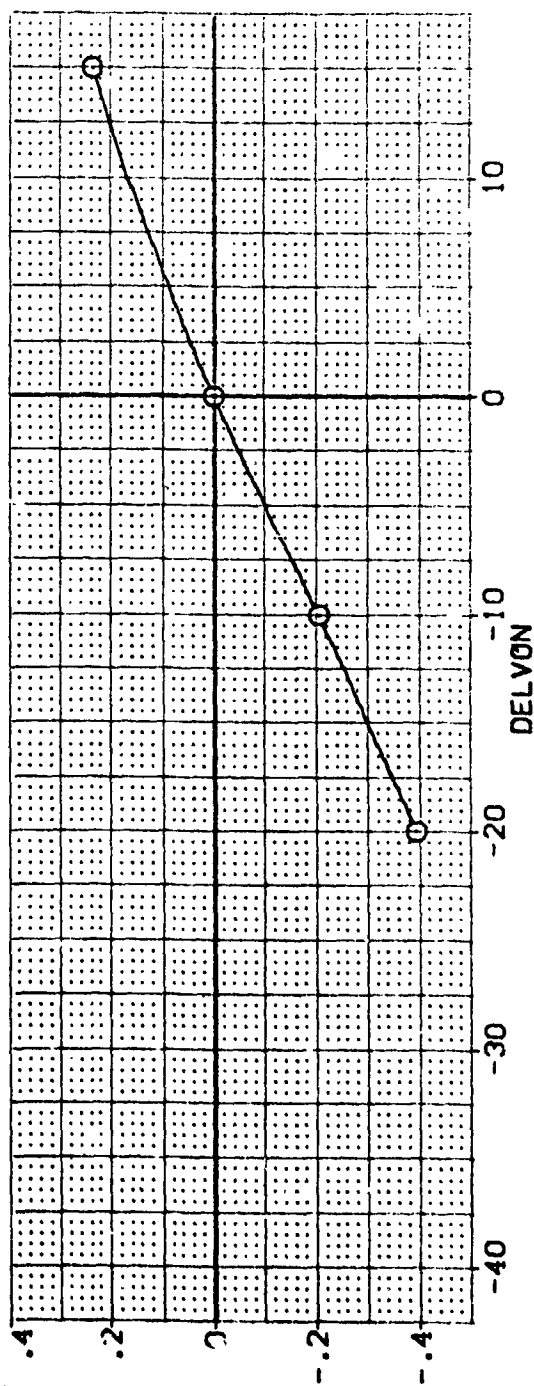
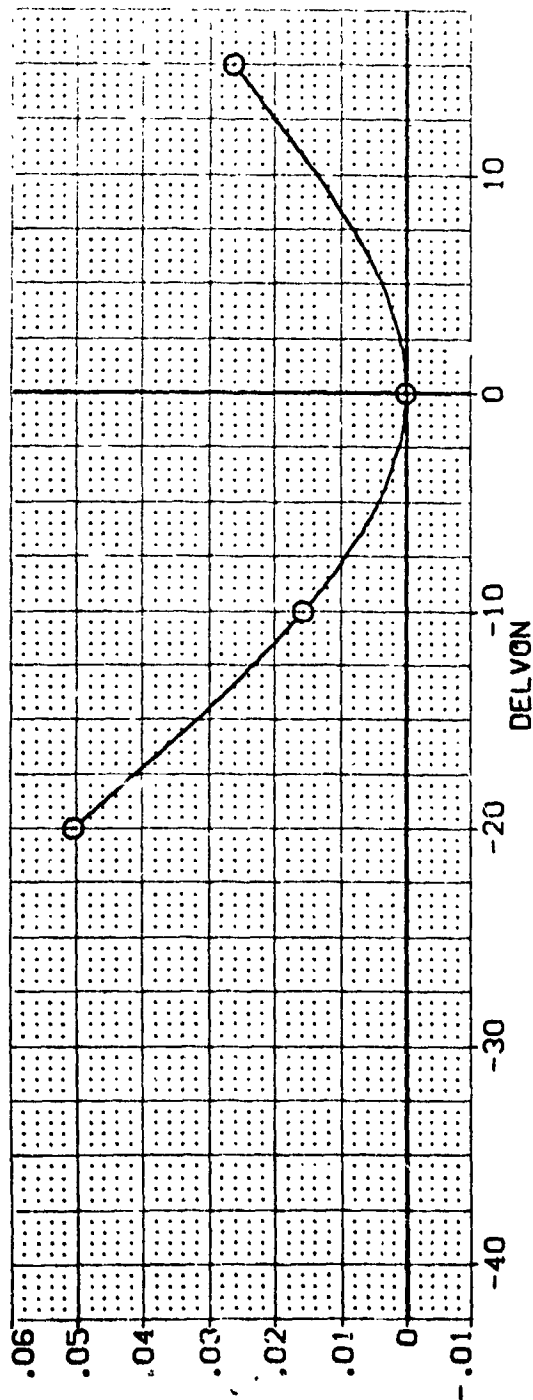


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285



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CA62B B26C9G15M7F8J43W116E28\8R5X10 (1DZ076)

SYMBOL	ALPHA	MACH	BOFLAP	RUDER	H/BW	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DELVN	SREF	REFERENCE INFORMATION
C	25.000					.770 BETA -12.000 AILRON .000 SPOBRK .285	.000 DELVN -20.000 .000	1DZ076 1DZ073	-10.000 15.000	4.4119 19.2288 37.9333 43.5974 .0000 15.1875 .0405	SQ.FT. INCHES INCHES INCHES INCHES INCHES SCALE

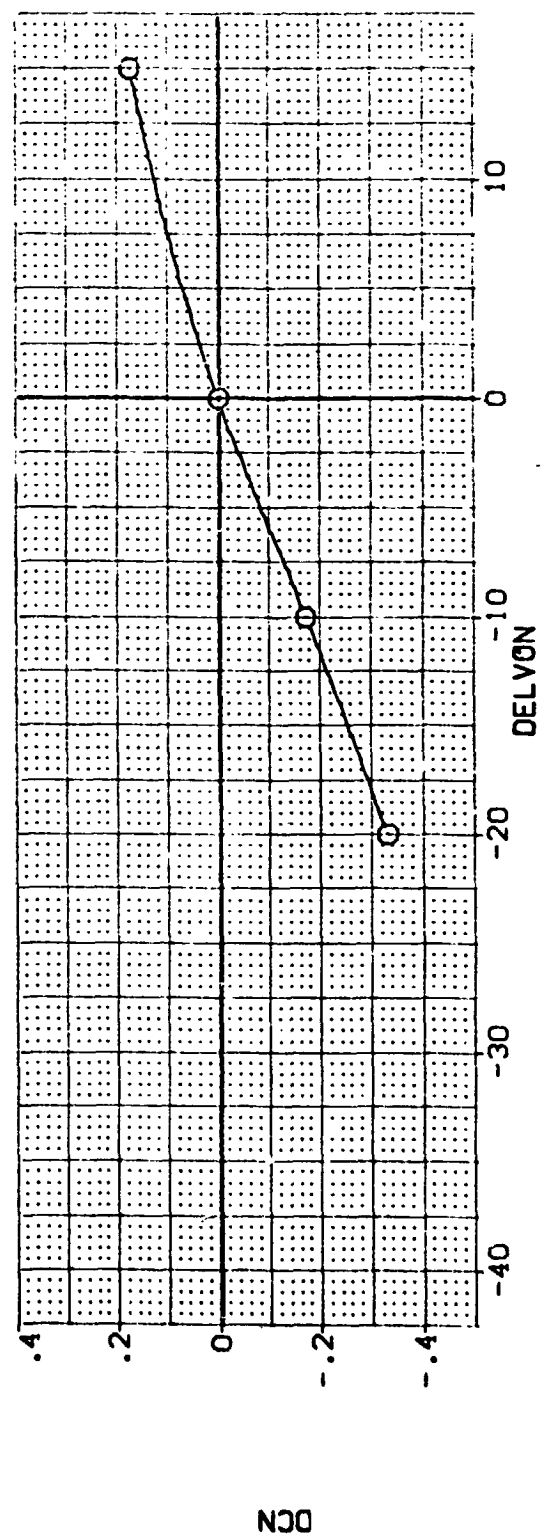
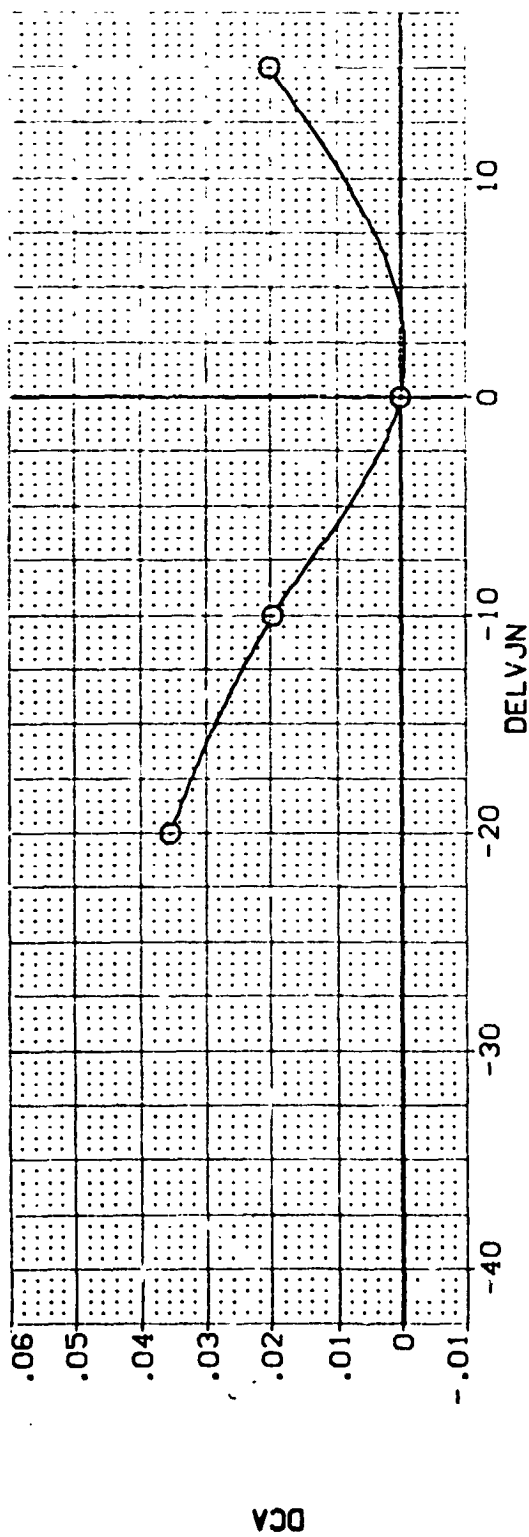


FIG 14 ELEVON EFFECTIVENESS, UNDERWING PODDED ENGINES, H/BW = 0.285

0A628 B26C9G15M7F8J43W116E28V8R5X10 (10Z076)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	30.000	BOFLAP	.200	.000	4.4119
		RUDER	-12.000	.000	19.2299
		H/BW	.000	.000	37.9359
			.285	.000	43.5974
				.000	.0000
				.000	15.1875
				.000	.0405
				.000	SCALE

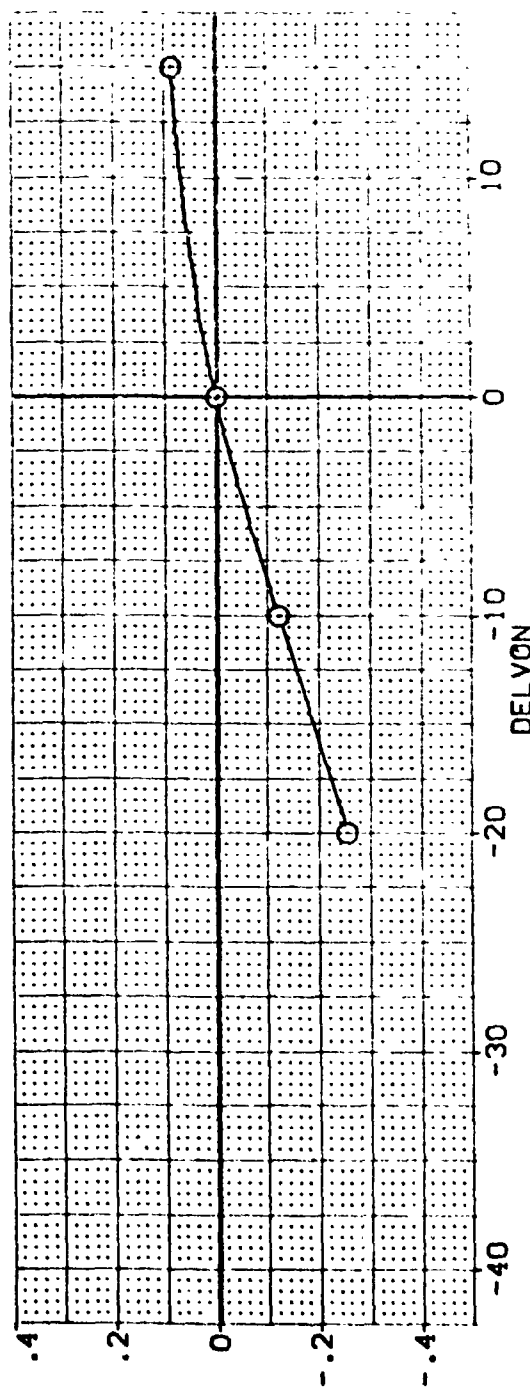
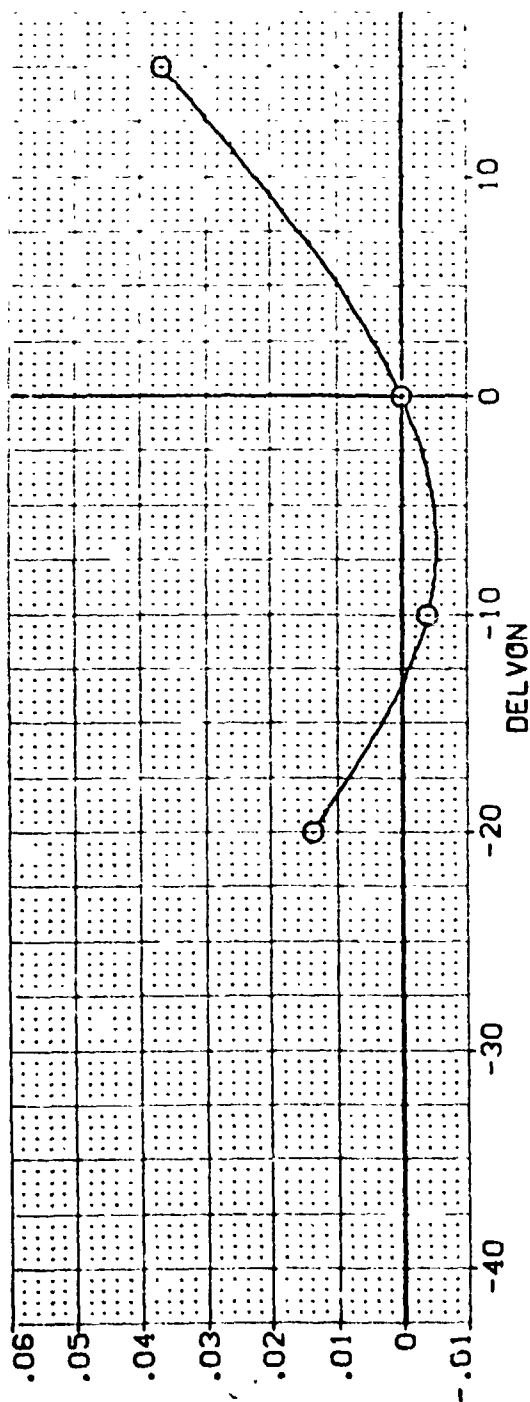


FIG 14 ELEVON EFFECTIVENESS, UNDERWING POODED ENGINES, H/BW = 0.285

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	W/BV	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02053)	0A628 B26C9G 547F8443V  6E28VBR5X10	.000	.035	.000	-12.000	SREF 4.4119 SQ.FT. INCHES
(B02070)	0A628 B26C9G 547F8443V  6E28VBR5X10	.000	.125	.000	-12.000	LREF 19.2293 INCHES
(B02073)	0A628 B26C9G 547F8443V  6E28VBR5X10	.000	.265	.000	-12.000	BREF 37.9353 INCHES
(B02309)	0A628 B26C9G 547F8443V  6E28VBR5X10	.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

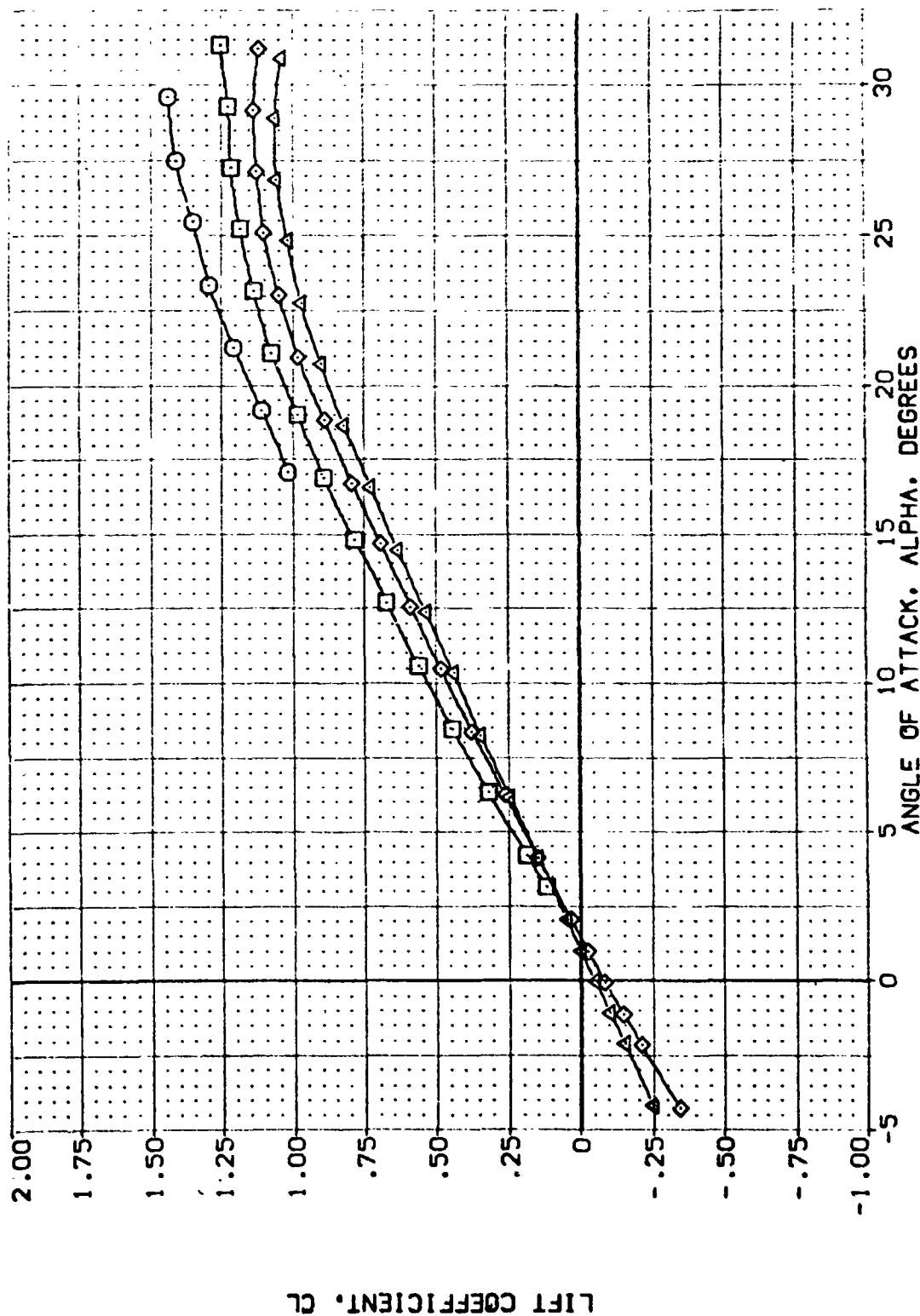


FIG 15 EFFECT OF GROUND HT., UNDERWING POODED ENGINES OMS ON, ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802063) QAS28 B26C9G|SM7F 8J4 3V|16E28V8K5X10  
 (802070) QAS28 B26C9G|SM7F 8J4 3V|16E28V8K5X10  
 (802073) QAS28 B26C9G|SM7F 8J4 3V|16E28V8K5X10  
 (802309) QAS28 B26C9G|SM7F 8J4 3V|16E28V8K5X10

ELEVON H/BV SPOBRK BOFLAP REFERENCE INFORMATION  
 .000 .035 .000 -12.000 SREF 4.4119 SQ.FT.  
 .000 .125 .000 -12.000 LREF 19.2292 INCHES  
 .000 .285 .000 -12.000 BREF 37.5359 INCHES  
 .000 .000 .000 -12.000 XREF 43.5374 INCHES  
 .000 .000 .000 -12.000 YREF 15.1873 INCHES  
 .000 .000 .000 -12.000 ZREF 15.1873 INCHES  
 .000 .000 .000 -12.000 SCALE .0400

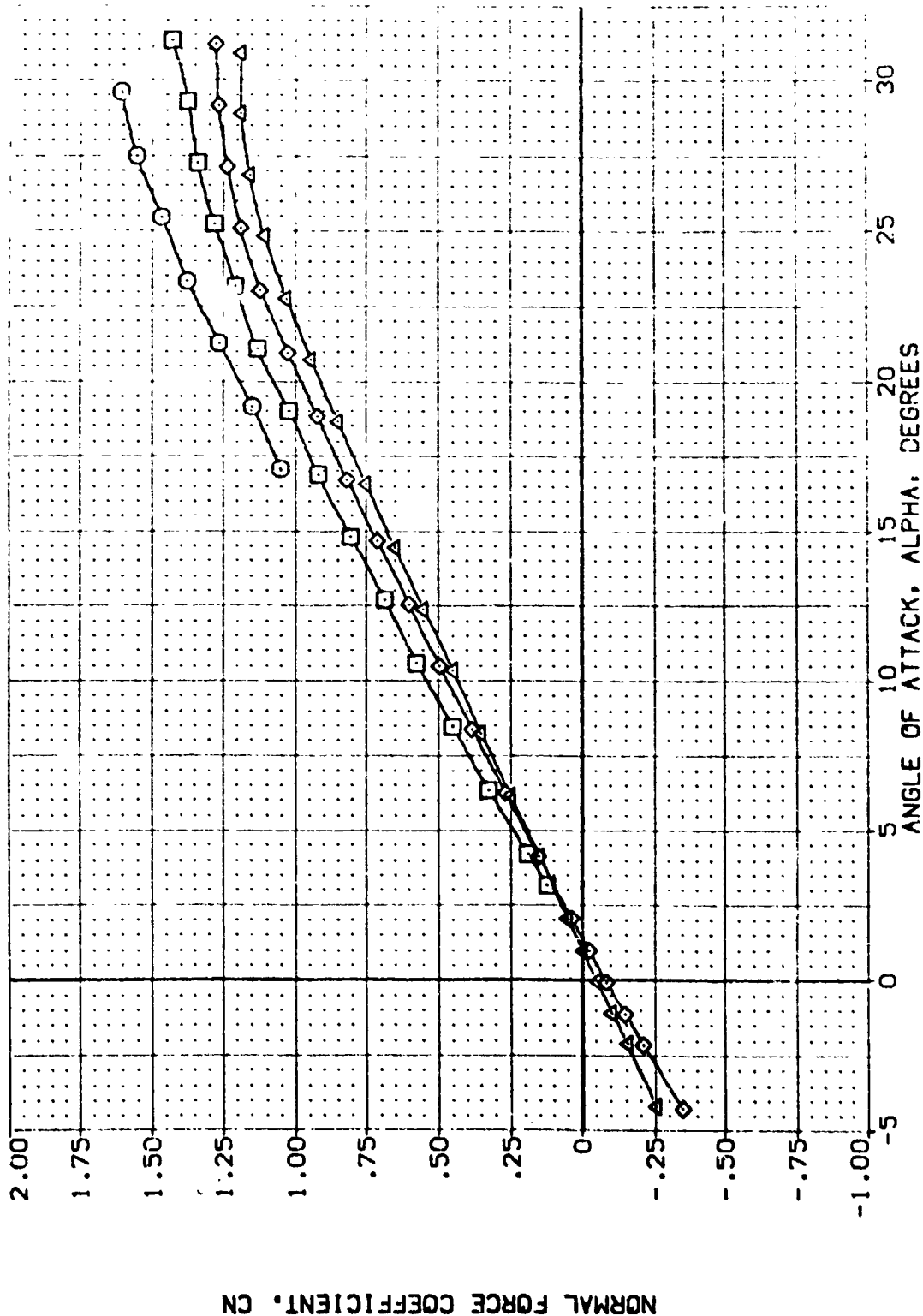


FIG 15 EFFECT OF GROUND HT., UNDERWING POODED ENGINES OMS ON, ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	W/BV	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02053)	0A628 B26C9G 547F 8J43V  6E28V8R5X10	.000	.025	.000	-12.000	SREF 4.4119 SO.FT. INCHES
(B02070)	0A628 B26C9G 547F 8J43V  6E28V8R5X10	.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02073)	0A628 B26C9G 547F 8J43V  6E28V8R5X10	.000	.265	.000	-12.000	BREF 37.9359 INCHES
(B02309)	0A628 B26C9G 547F 8J43V  6E28V8R5X10	.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

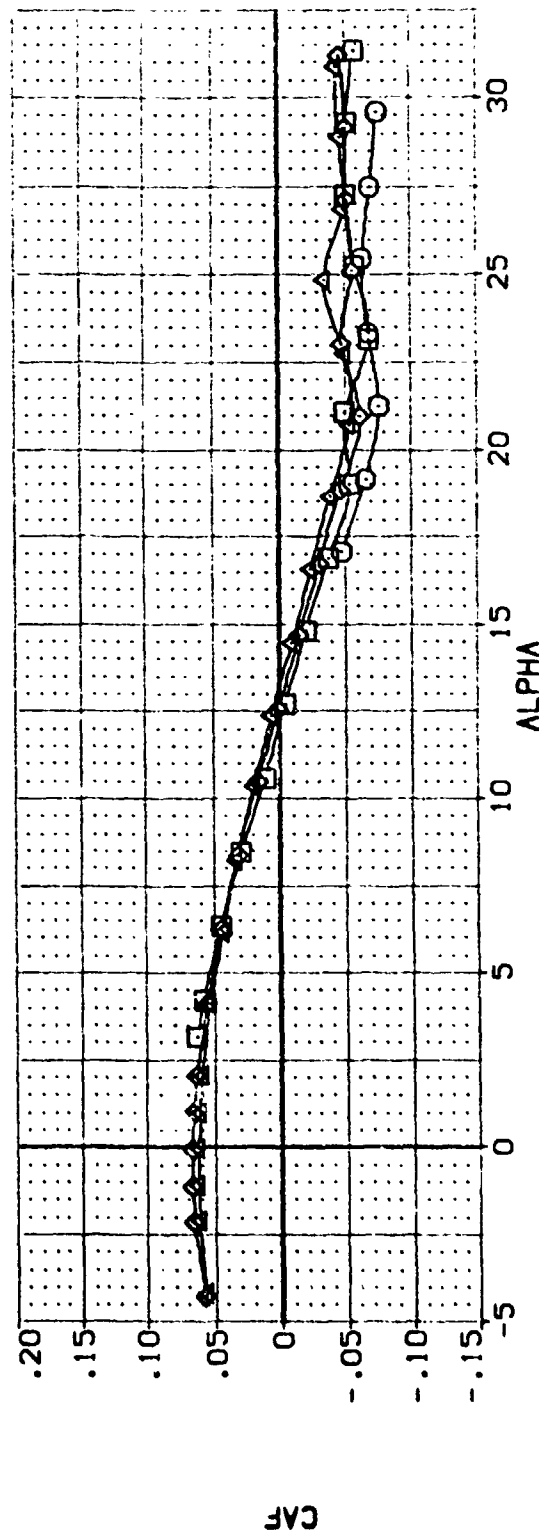
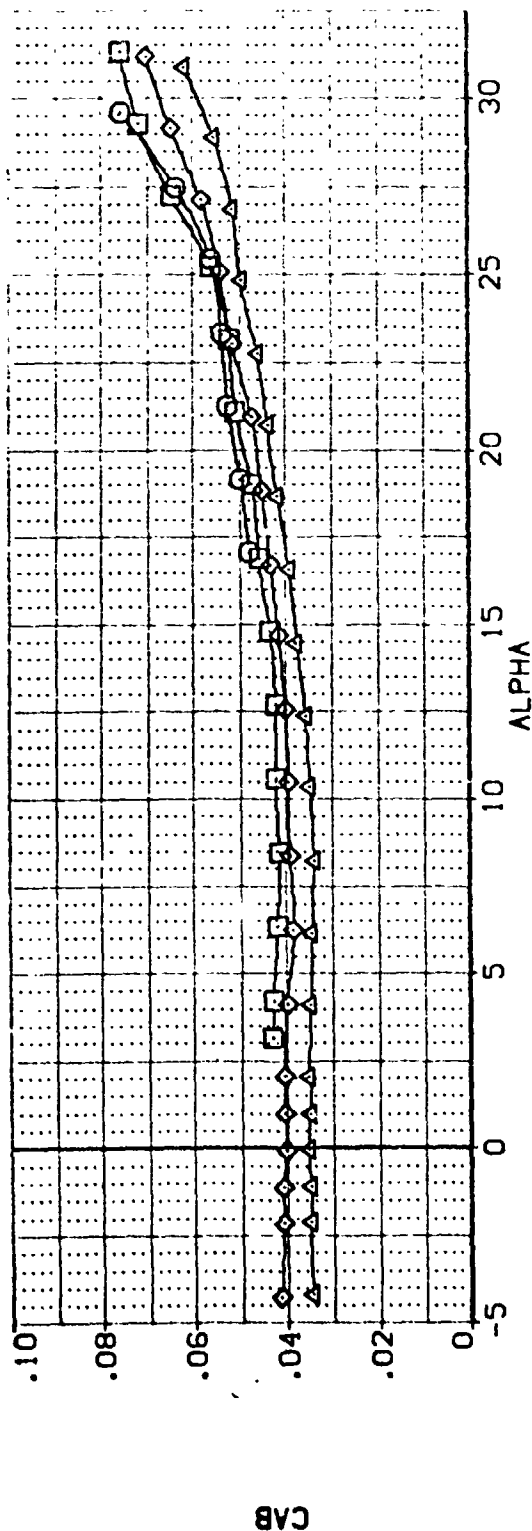


FIG 15 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 0  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/V	SPORCK	BOFLAP	REFERENCE INFORMATION
(B02082)	0A628 B26C9G 547F8J43V 1GE28V8R5X10	.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B02070)	0A628 B26C9G 547F8J43V 1GE28V8R5X10	.000	.125	.000	-12.000	LREF 19.2283 INCHES
(B02073)	0A628 B26C9G 547F8J43V 1GE28V8R5X10	.000	.285	.000	-12.000	LREF 37.9359 INCHES
(B02309)	0A628 B26C9G 547F8J43V 1GE28V8R5X10	.000		.000	-12.000	XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405 INCHES

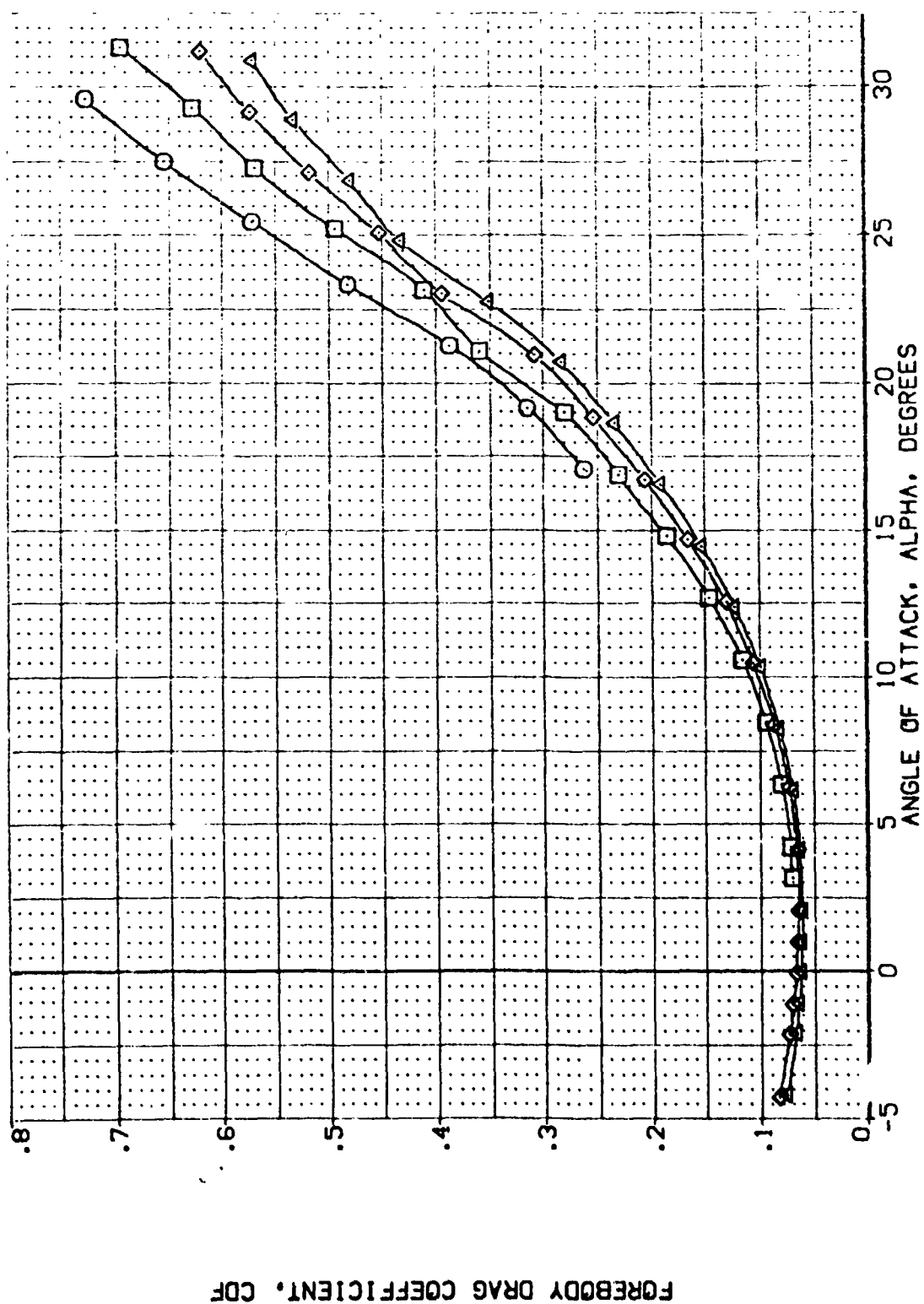


FIG 15 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 0  
(A)MACH = .20 PAGE 250



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/VB	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802063)	0A628 B26C9G1 SMTF 8J43V116E28V8R5X10	.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(802070)	0A628 B26C9G1 SMTF 8J43V116E28V8R5X10	.000	.125	.000	-12.000	LREF 19.2299 INCHES
(802073)	0A628 B26C9G1 SMTF 8J43V116E28V8R5X10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
(802309)	0A628 B26C9G1 SMTF 8J43V116E28V8R5X10	.000		.000		XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

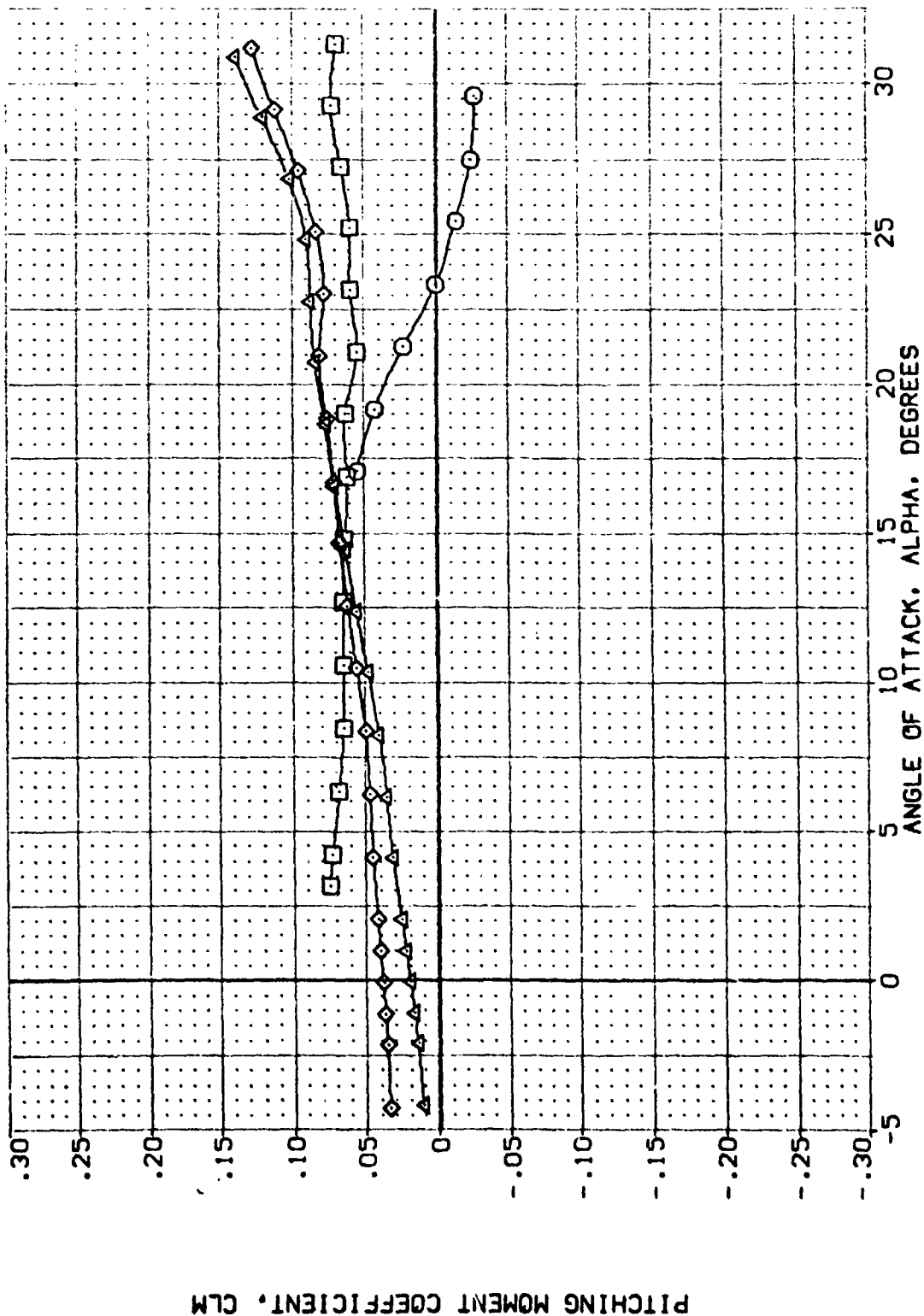


FIG 15 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B02063)	04628 B26C5G 547F 6U 43V1 6E28V885X10
(B02070)	04628 B26C5G 547F 6U 43V1 6E28V885X10
(B02073)	04628 B26C5G 547F 6U 43V1 6E28V885X10
(B02309)	04628 B26C5G 547F 6U 43V1 6E28V885X10

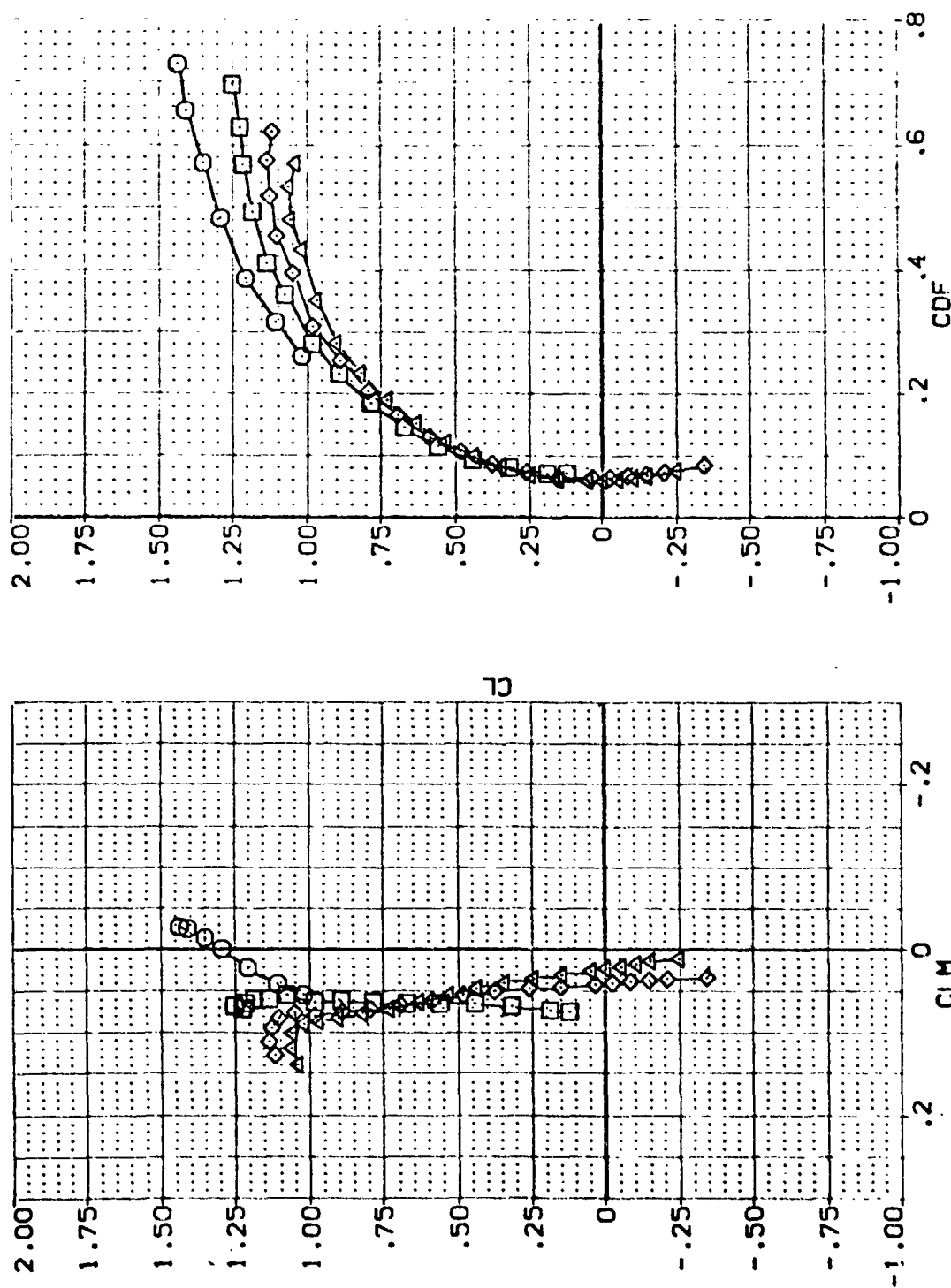


FIG 15 EFFECT OF GROUND HT., UNDERWING PADDED ENGINES OMS ON, ELEVON = 0



LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B02063)	0A628 B26C9G 347F 8J43V116E28V8K5X10
(B02070)	0A628 B26C9G 347F 8J43V116E28V8K5X10
(B02073)	0A628 B26C9G 347F 8J43V116E28V8K5X10
(B02209)	0A628 B26C9G 347F 8J43V116E28V8K5X10

ELEVON	HVBV	SPOBRK	BOFLAP	REFERENCE INFORMATION
.000	.035	.000	-12.000	SREF 4.4119 50.17
.000	.125	.000	-12.000	LREF 19.2299 INCHES
.000	.285	.000	-12.000	BREF 37.9359 INCHES
		.000	-12.000	XMRP 43.5974 INCHES
				YMRP .0000 INCHES
				ZMRP 15.1875 INCHES
				SCALE .0403

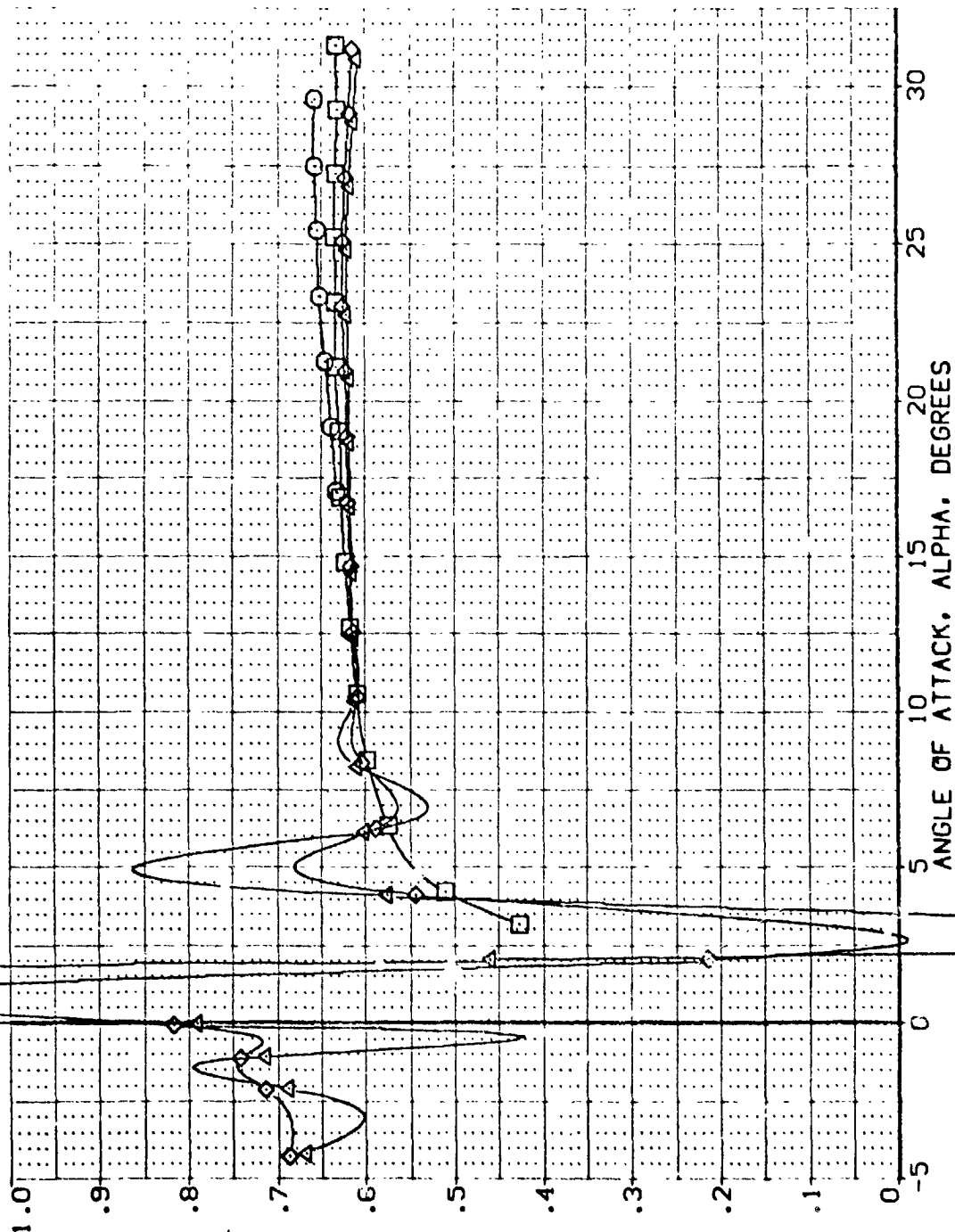


FIG 15 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(B02063)	□	0A628 B26C56 547F8443V 16E28V8RSX10
(B02070)	◇	0A628 B26C56 547F8443V 16E28V8RSX10
(B02073)	△	0A628 B26C56 547F8443V 16E28V8RSX10
(B02309)	○	0A628 B26C56 547F8443V 16E28V8RSX10

ELEVON H/BV SPDRBK BOFLAP REFERENCE INFORMATION

.000	.035	.000	-12.000	SREF	4.4119	SO.FT.
.000	.125	.000	-12.000	LREF	19.2299	INCHES
.000	.285	.000	-12.000	BREF	37.9359	INCHES
.000		.000	-12.000	YMRP	43.5974	INCHES
				ZMRP	.0000	INCHES
				SCALE	15.1875	INCHES
					.0405	SCALE

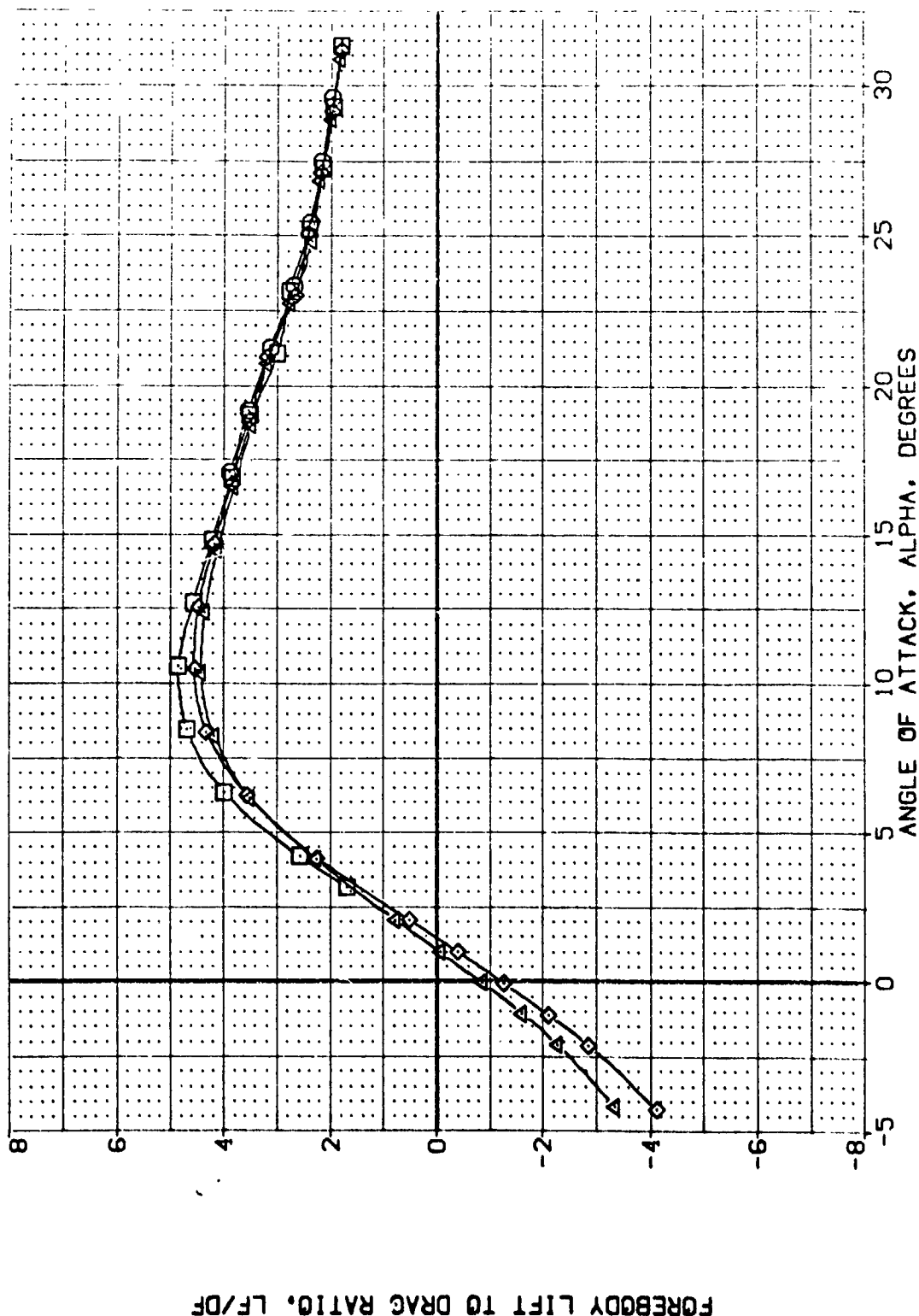


FIG 15 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 0  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/V	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02054)	0A628 B26C3G 547F8J43V  6E28V8R5X10	15.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B02059)	0A628 B26C3G 547F8J43V  6E28V8R5X10	15.000	.125	.000	-12.000	LREF 19.2298 INCHES
(B02074)	0A628 B26C3G 547F8J43V  6E28V8R5X10	15.000	.285	.000	-12.000	BREF 37.9359 INCHES
(B02311)	0A628 B26C3G 547F8J43V  6E28V8R5X10	15.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

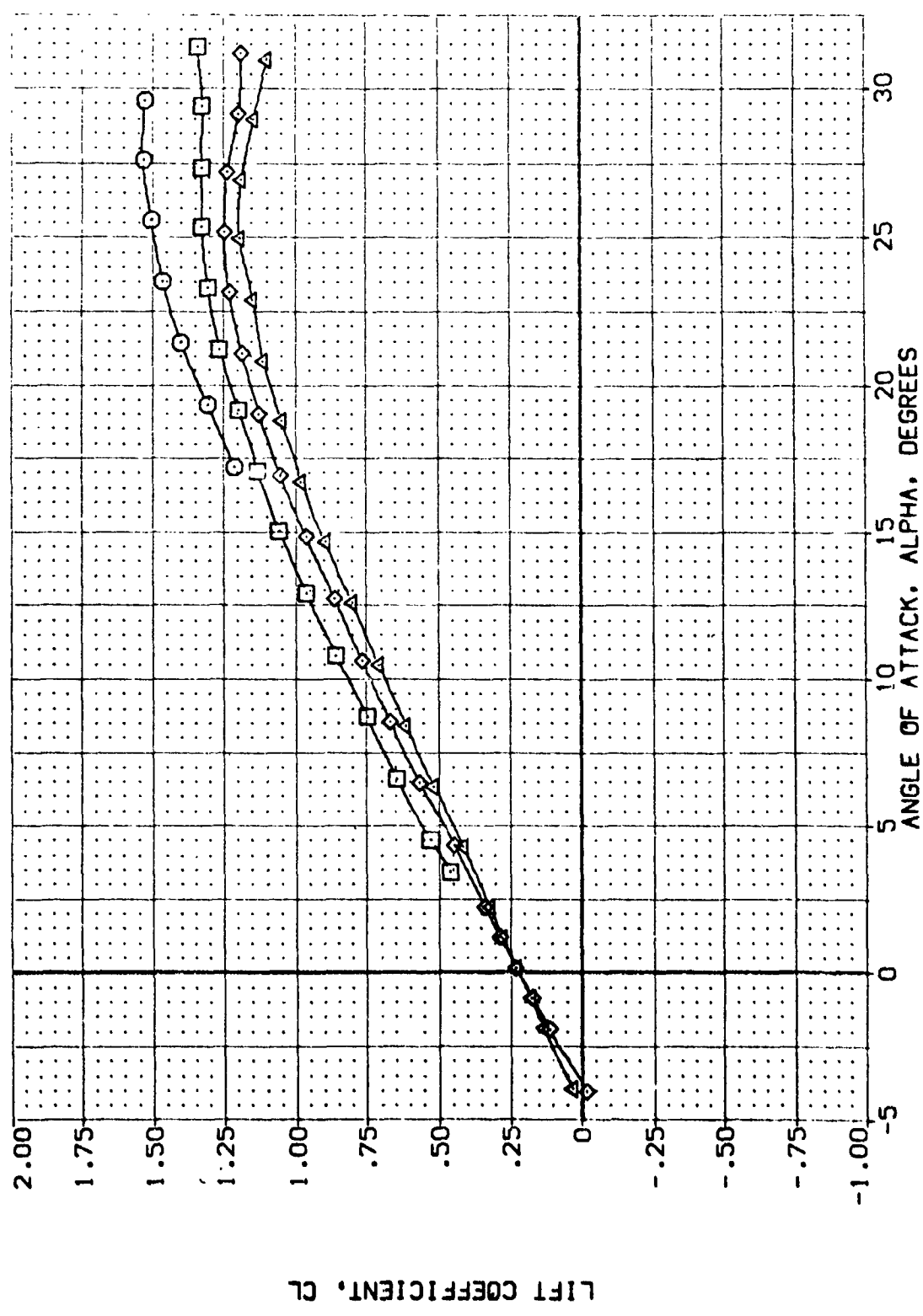


FIG 16 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 15  
 (A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02054)	0A628 B26C9G1 SM7F8J43V116E28V8RSX10	15.000	.075	.000	-12.000	SREF 4.4119 50. FT
(B02059)	0A628 B26C9G1 SM7F8J43V116E28V8RSX10	15.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02074)	0A628 B26C9G1 SM7F8J43V116E28V8RSX10	15.000	.285	.000	-12.000	BREF 37.9359 INCHES
(B02311)	0A628 B26C9G1 SM7F8J43V116E28V8RSX10	15.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1975 INCHES
						SCALE .0405 INCHES

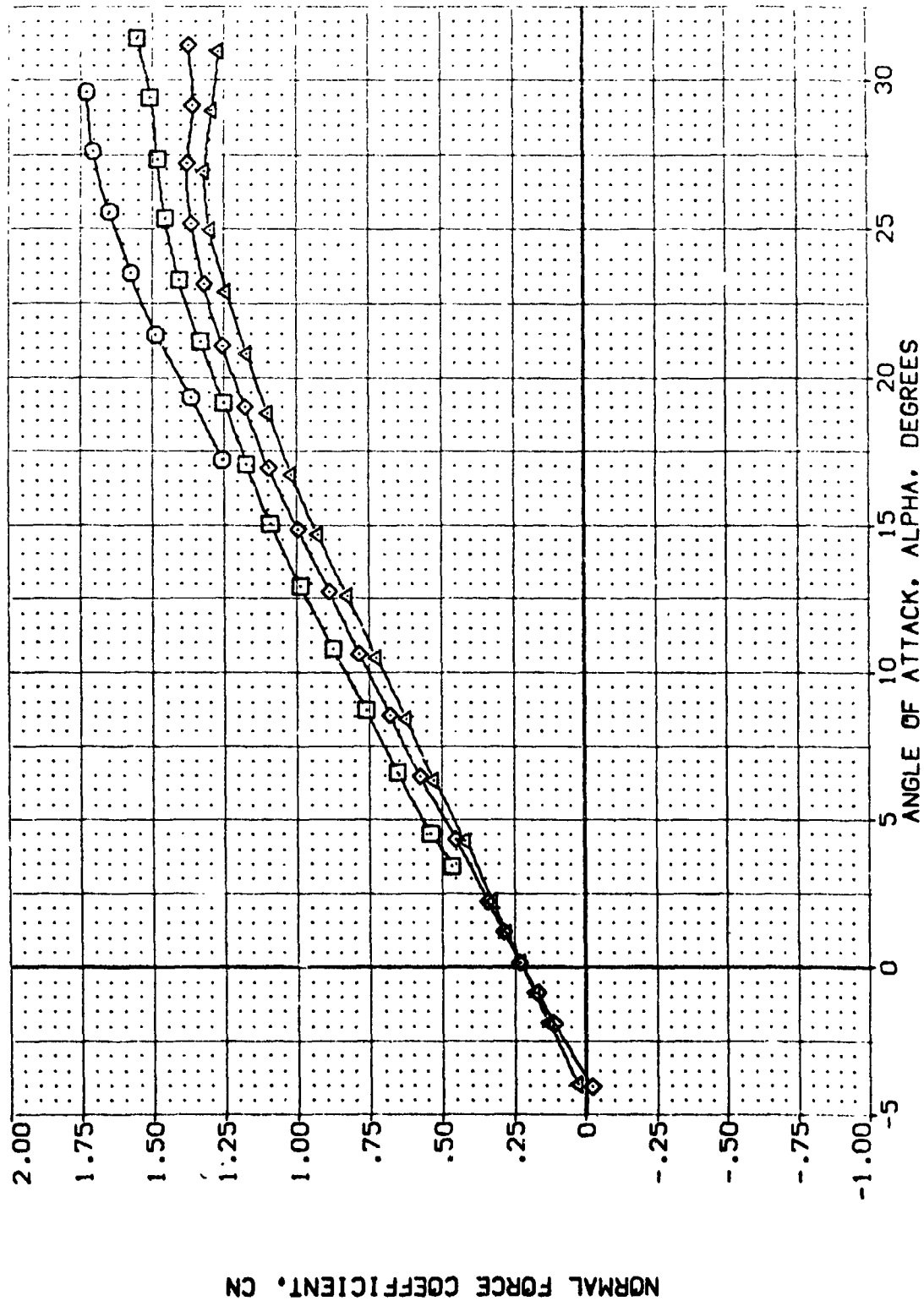


FIG 16 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 15  
 (A)MACH = .20 PAGE 258

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/VBN	SPOBRK	BDFLAP	REFERENCE INFORMATION
(BUZ064)	0A628 B26C9G 5M7F8J43V 16E28V8R5X 10	15.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(BUZ069)	0A628 B26C9G 5M7F8J43V 16E28V8R5X 10	15.000	.125	.000	-12.000	LREF 19.2299 INCHES
(BUZ074)	0A628 B26C9G 5M7F8J43V 16E28V8R5X 10	15.000	.285	.000	-12.000	BREF 37.9359 INCHES
(BUZ071)	0A628 B26C9G 5M7F8J43V 16E28V8R5X 10	15.000		.000	-12.000	XMRP 43.5974 INCHES
(BUZ071)	0A628 B26C9G 5M7F8J43V 16E28V8R5X 10	15.000		.000	-12.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

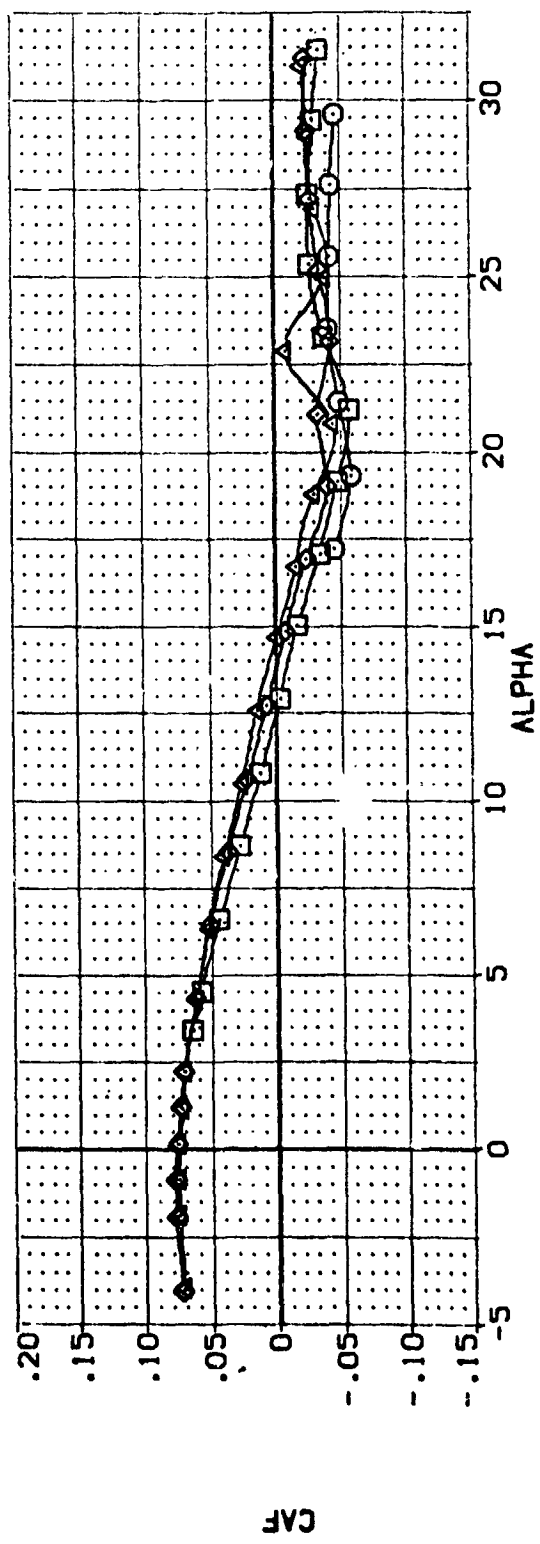
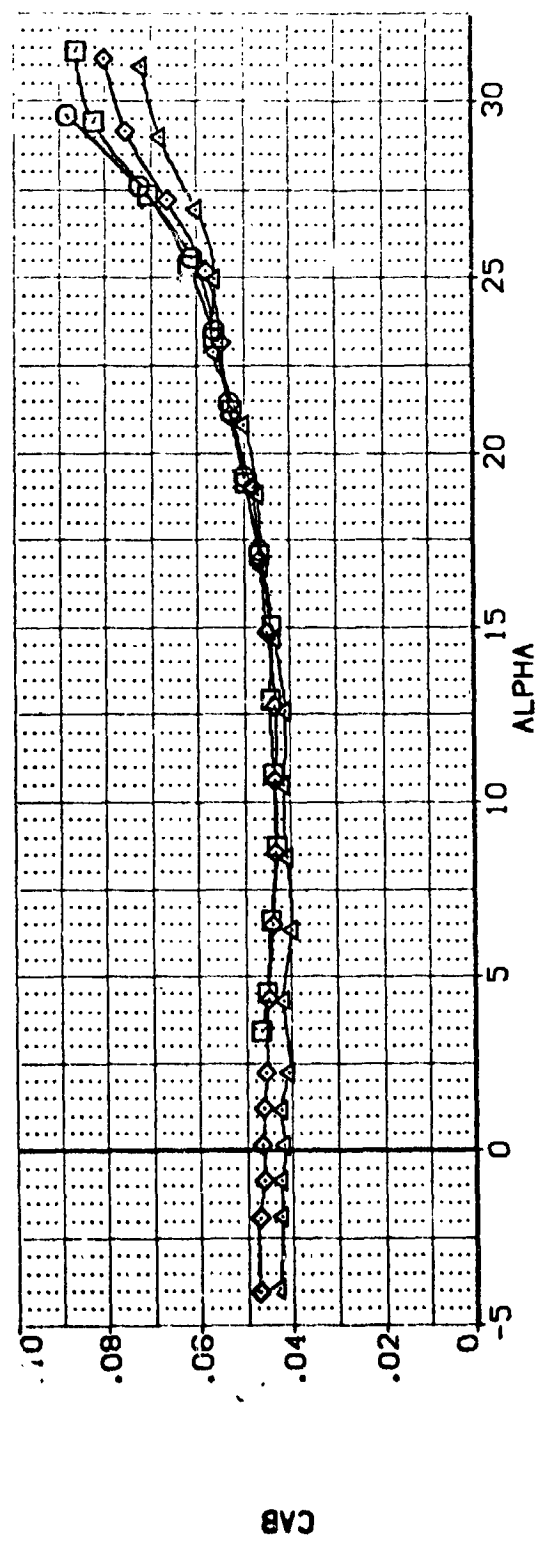


FIG 16 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 15  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPOORX	BOFLAP	REFERENCE INFORMATION
(B02064)	0A628 B26C5G1 SMTF 8J43V1 16E28V85X10	15.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B02069)	0A628 B26C5G1 SMTF 8J43V1 16E28V85X10	15.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02074)	0A628 B26C5G1 SMTF 8J43V1 16E28V85X10	15.000	.265	.000	-12.000	BREF 37.9359 INCHES
(B02311)	0A628 B26C5G1 SMTF 8J43V1 16E28V85X10	15.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

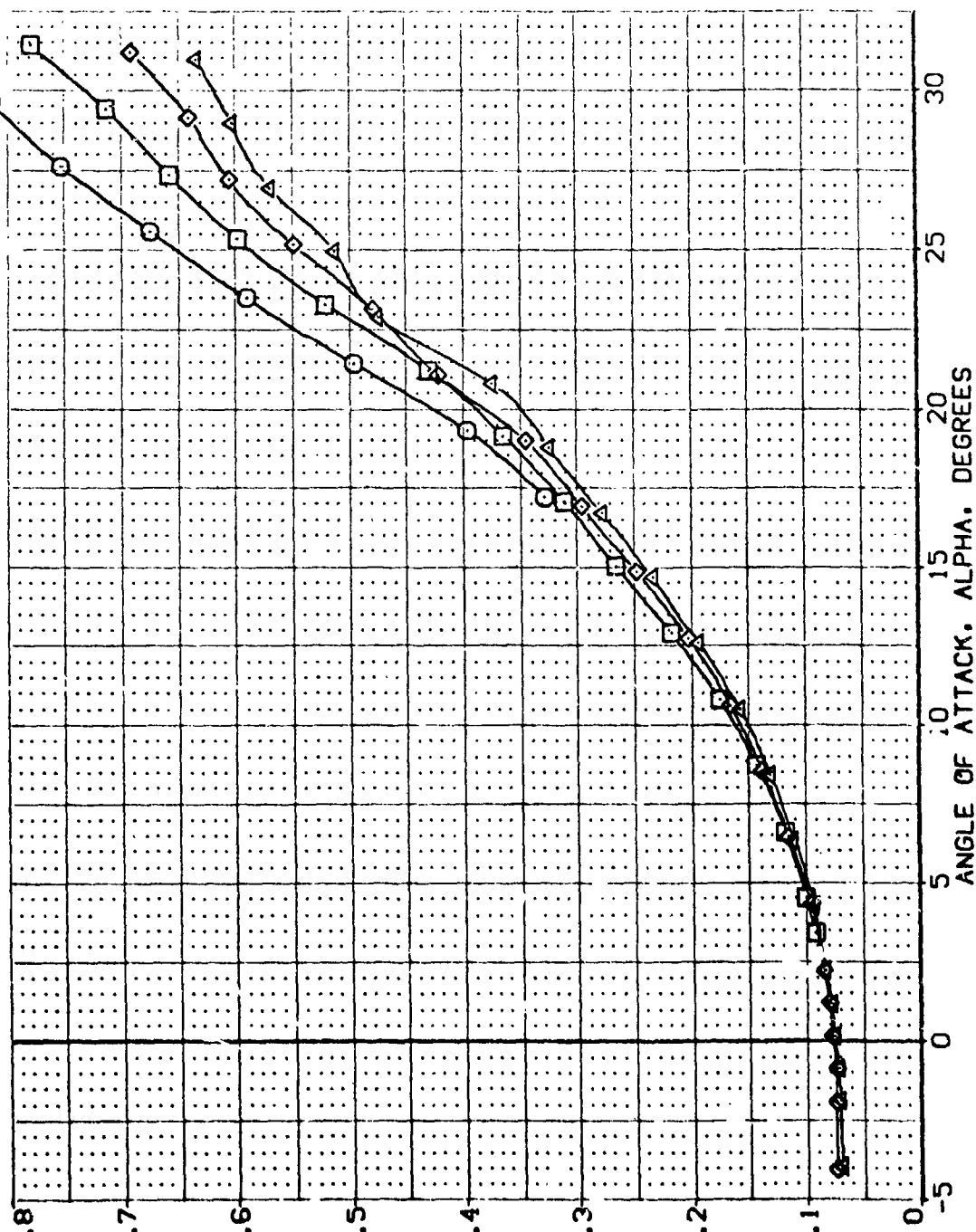
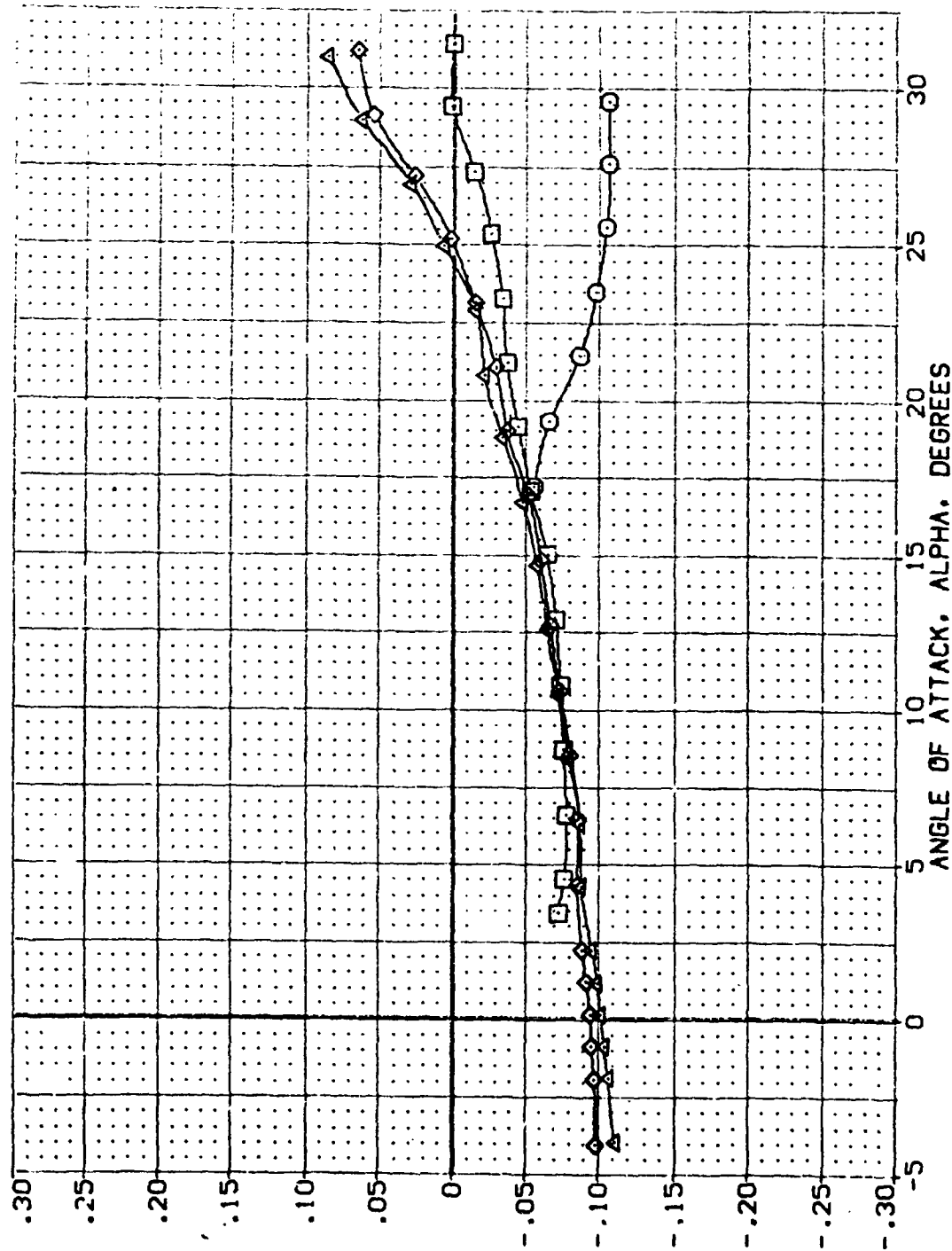


FIG 16 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 15  
(A) MACH = .20

4 4

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02064) CA628 B26C9G|547F8443V||16E28V8RSX10  
 (B02069) CA628 B26C9G|547F8443V||16E28V8RSX10  
 (B02074) CA628 B26C9G|547F8443V||16E28V8RSX10  
 (B02311) CA628 B26C9G|547F8443V||16E28V8RSX10

ELEVON W/SV SPDRK BOFLAP REFERENCE INFORMATION  
 15.000 .035 .000 -12.000 SREF 4.4119 SO.FT.  
 15.000 .125 .000 -12.000 LREF 19.2293 INCHES  
 15.000 .285 .000 -12.000 BREF 37.9553 INCHES  
 ZMRP 43.5974 INCHES  
 SCALE 15.1875 INCHES  
 .0405 SCALE



PITCHING MOMENT COEFFICIENT, CLM

FIG 16 EFFECT OF GROUND HT., UNDERWING POODED ENGINES OMS CN, ELEVON = 15  
 CAJMACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02064) 01628 B26C9G|547F8J43V||6E28V8R5X10  
 (B02069) 01628 B26C9G|547F8J43V||6E28V8R5X10  
 (B02074) 01628 B26C9G|547F8J43V||6E28V8R5X10  
 (B02311) 01628 B26C9G|547F8J43V||6E28V8R5X10

ELEVON H/WB SPOBRK BOFLAP REFERENCE INFORMATION  
 15.000 .075 .000 -12.000 SREF 4.4119 SO.FT.  
 15.000 .125 .000 -12.000 LREF 19.2299 INCHES  
 15.000 .285 .000 -12.000 BREF 37.9359 INCHES  
 15.000 .000 .000 -12.000 XPRP 43.5974 INCHES  
 15.000 .000 .000 -12.000 YPRP .0000 INCHES  
 15.000 .000 .000 -12.000 ZPRP 15.1875 INCHES  
 15.000 .000 .000 -12.000 SCALE .0405

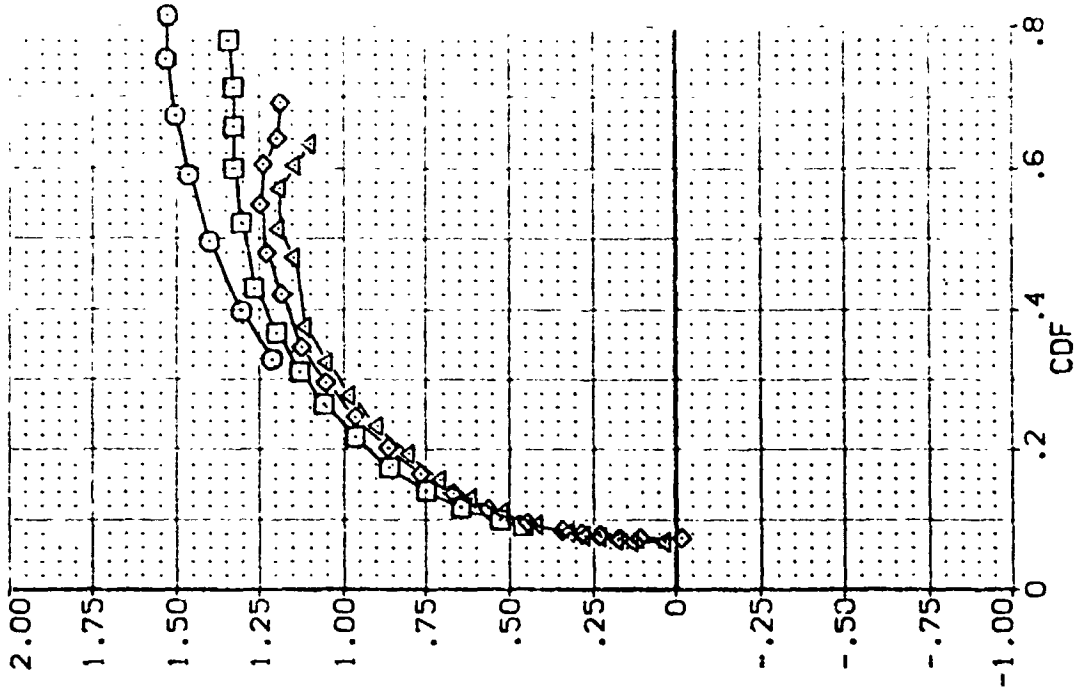
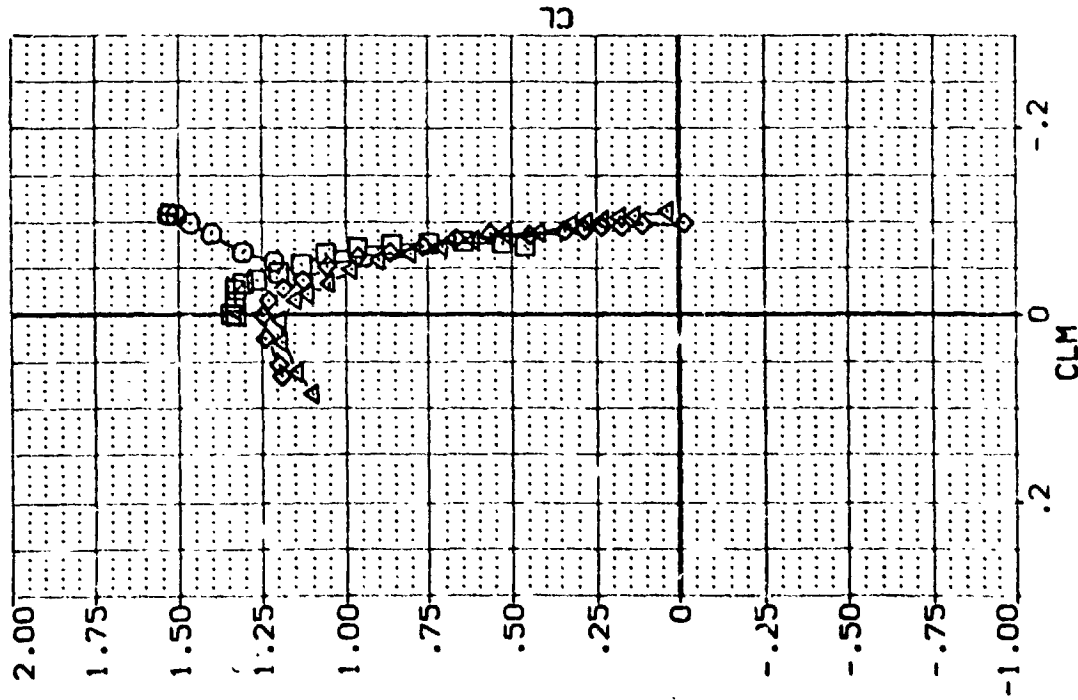


FIG 16 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 15

(A)MACH = .20



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DATA SET SYMBOL	CONF	CURATION DESCRIPTION	ELEVON	W/BV	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02064)	DA628	B26C3G 5H7F8J43V 1E28V85X10	15.000	.035	.000	-12.000	SREF 4.4119 SO.FT.
(B02069)	DA628	B26C3G 5H7F8J43V 1E28V85X10	15.000	.125	.000	-12.000	LREF 19.2298 INCHES
(B02074)	DA628	B26C3G 5H7F8J43V 1E28V85X10	15.000	.265	.000	-12.000	BREF 37.9559 INCHES
(B02311)	DA628	B26C3G 5H7F8J43V 1E28V85X10	15.000		.000	-12.000	XMRP 43.5974 INCHES
							YMRP .0000 INCHES
							ZMRP 15.1875 INCHES
							SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

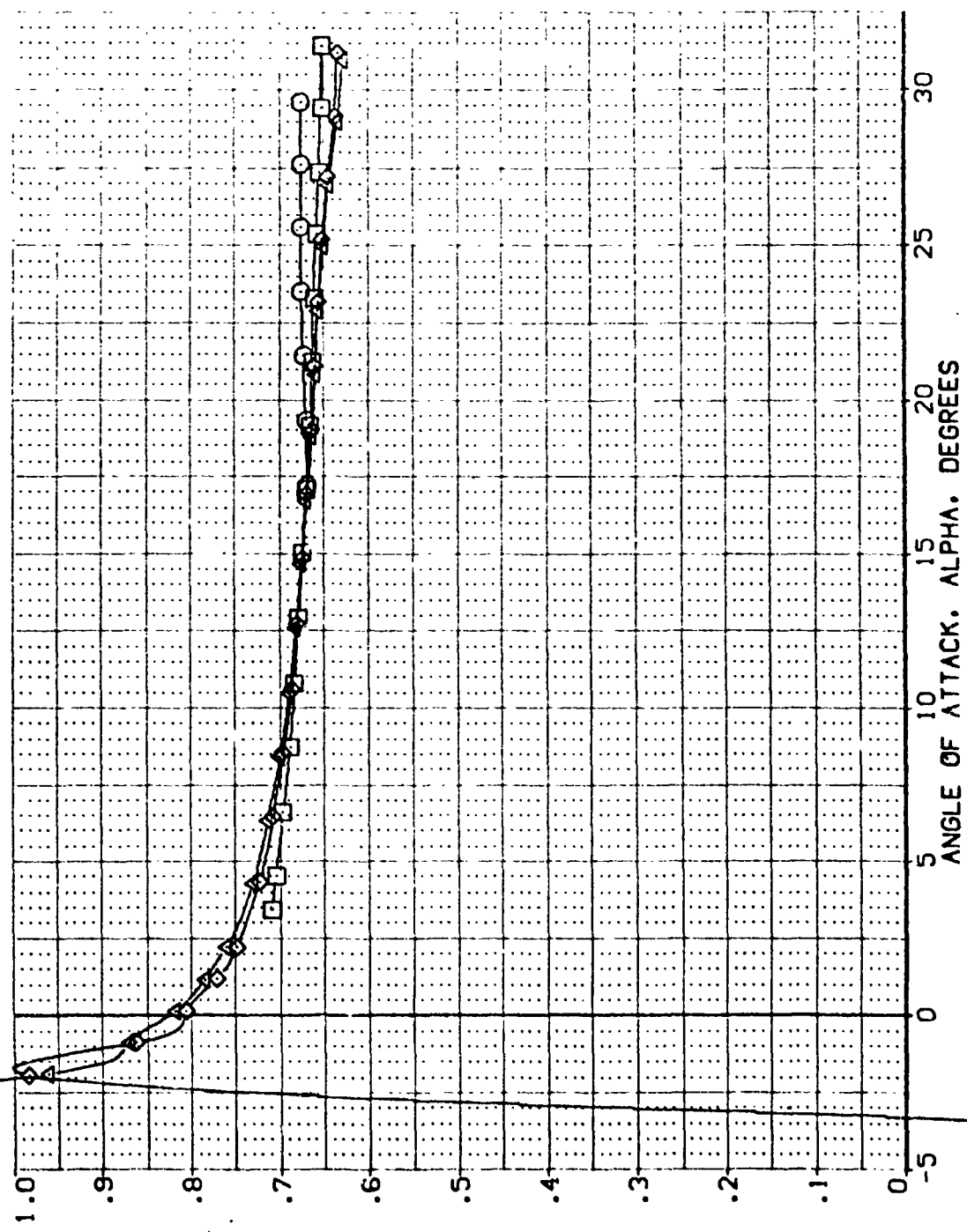


FIG 16 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 15  
(A) MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(B02064)	B26C961547F8J43V116E28V8RSX10
(B02069)	B26C961547F8J43V116E28V8RSX10
(B02074)	B26C961547F8J43V116E28V8RSX10
(B02311)	B26C961547F8J43V116E28V8RSX10

ELEVON H/BV SPOBRK BOFLAP

15.000	.035	.000	-12.000
15.000	.125	.000	-12.000
15.000	.285	.000	-12.000
15.000		.000	-12.000

REFERENCE INFORMATION

SREF	4.4119	SO.FT.
LREF	19.2299	INCHES
BREF	37.9359	INCHES
XMRP	43.5974	INCHES
YMRP	.0000	INCHES
ZMRP	15.1875	INCHES
SCALE	.0405	SCALE

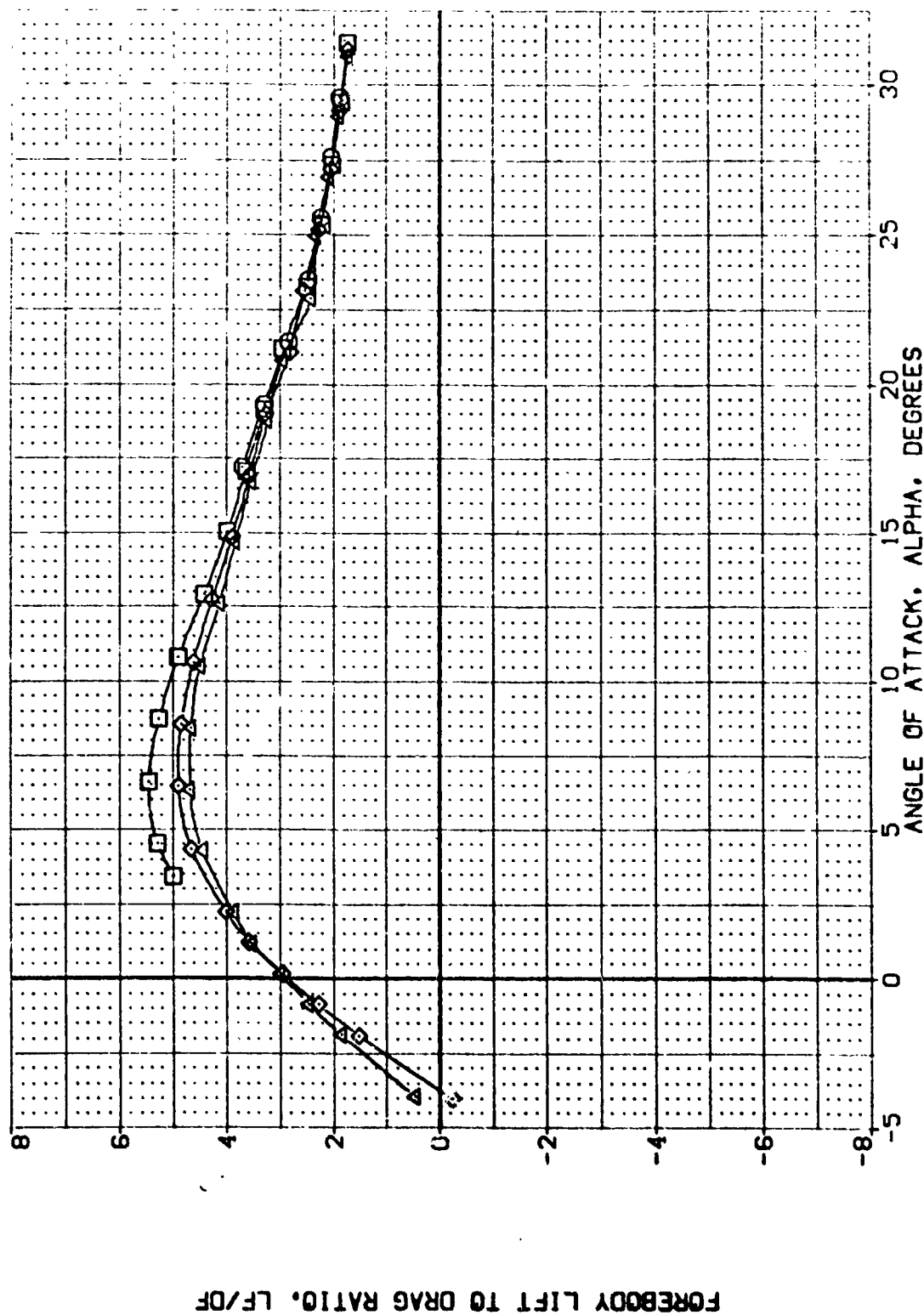


FIG 16 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = 15

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	M/BV	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02065)	QAS28 B26C9G1SMTF8J43V116E28V85X10	-10.00	.035	.000	-12.000	SREF 4.4119 SO.FT. INCHES
(B02068)	QAS28 B26C9G1SMTF8J43V116E28V85X10	-10.00	.125	.000	-12.000	LREF 19.2299 INCHES
(B02075)	QAS28 B26C9G1SMTF8J43V116E28V85X10	-10.00	.285	.000	-12.000	BREF 37.9359 INCHES
(B02312)	QAS28 B26C9G1SMTF8J43V116E28V85X10	-10.00		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

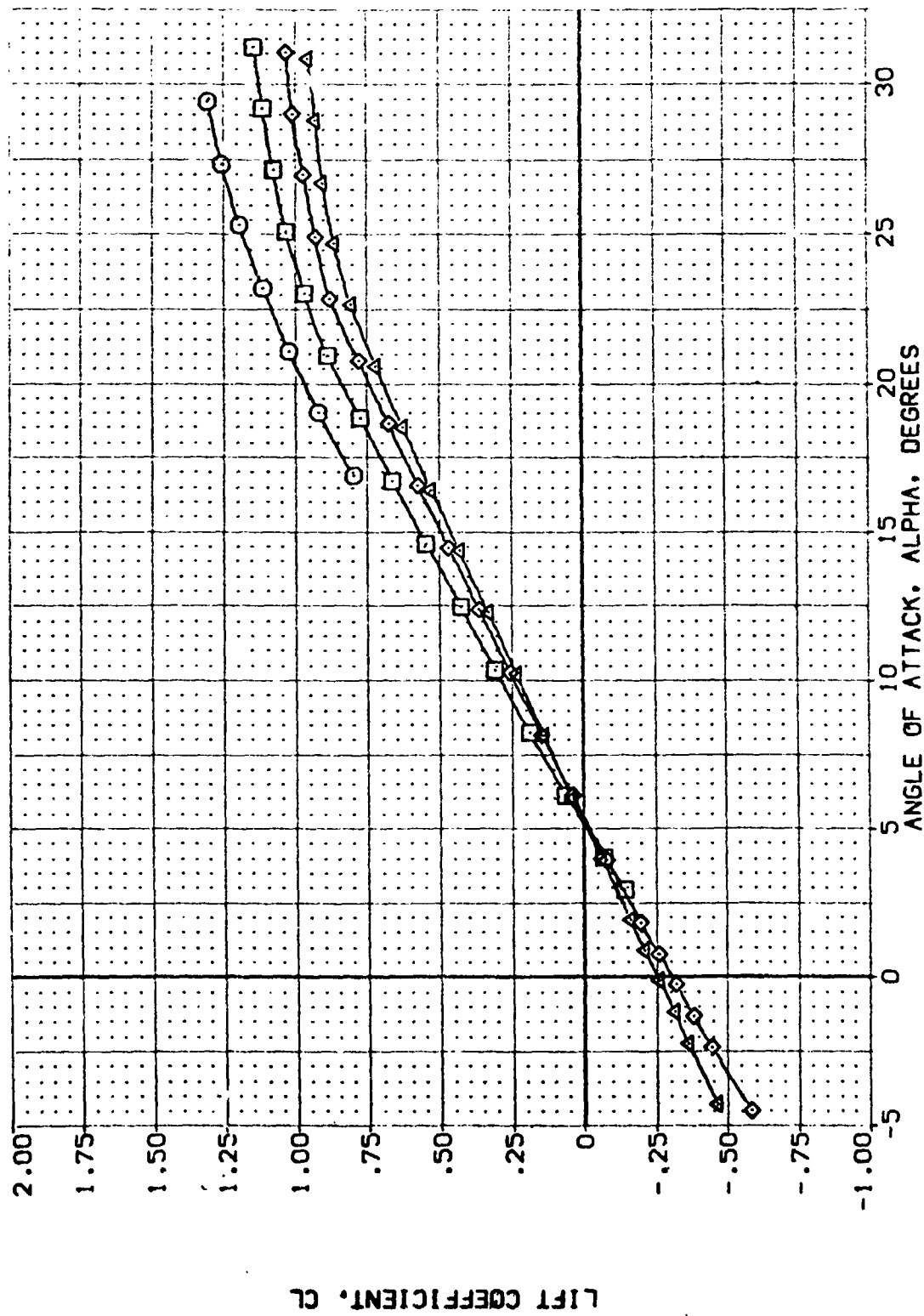


FIG 17 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -10

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	M/BV	SPDRBK	BOFLAP	REFERENCE INFORMATION
(80Z055)	0A628 B26C9G 547F8J43V  16E28V8RSX10	-10.000	.025	.000	-12.000	SREF 4.4119 SO.FT.
(80Z058)	0A628 B26C9G 547F8J43V  16F28V8RSX10	-10.000	.125	.000	-12.000	LREF 19.2299 INCHES
(80Z075)	0A628 B26C9G 547F8J43V  16L28V8RSX10	-10.000	.285	.000	-12.000	BREF 37.9359 INCHES
(80Z312)	0A628 B26C9G 547F8J43V  16E28V8RSX10	-10.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

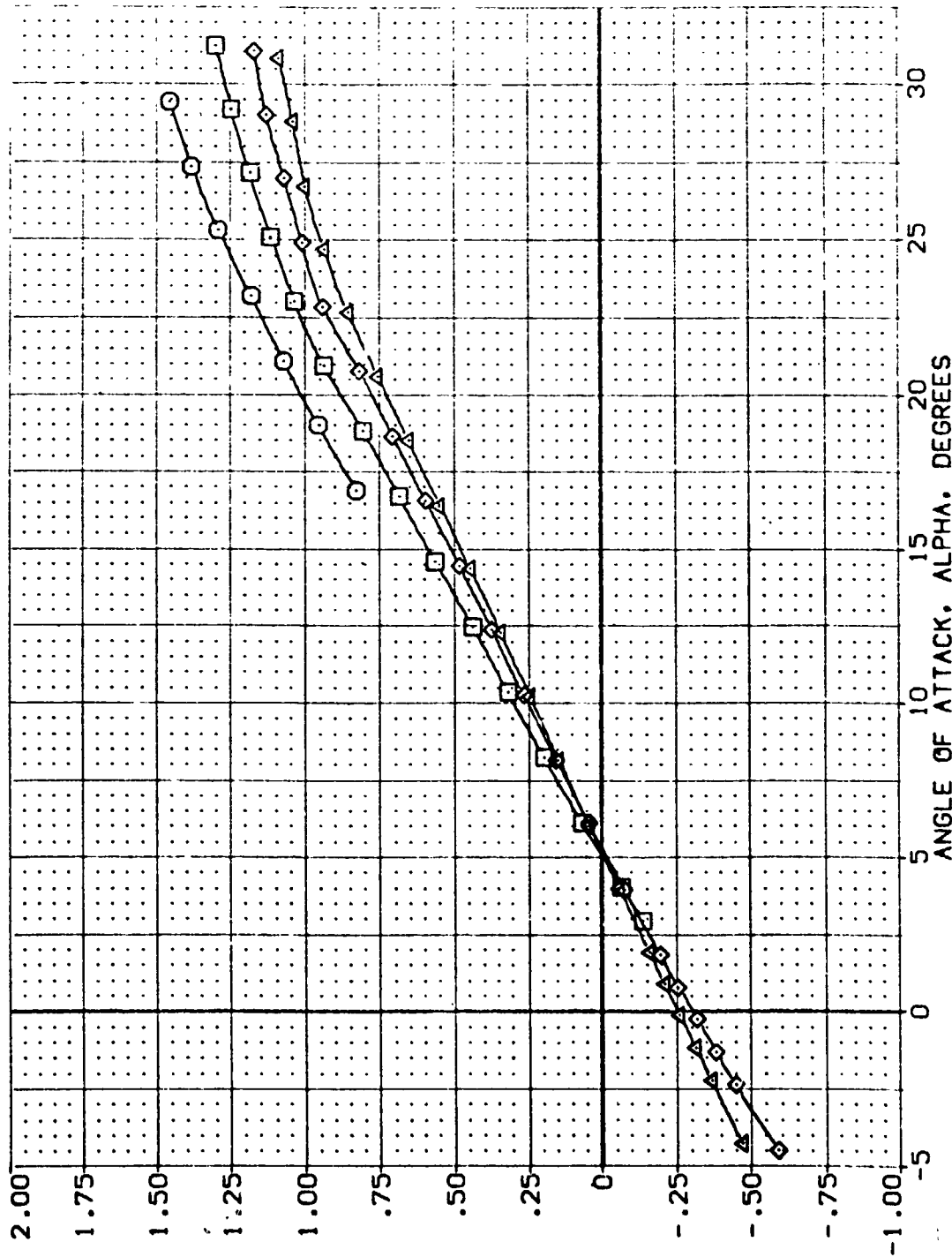


FIG 17 EFFECT OF GROUND HT., UNDERWING POODED ENGINES OMS ON, ELEVON = -10

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	FLEVEN	H/BV	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02055)	B26C9G 5M7F 8J43V  1E28V8RSX10	-10.000	.075	.000	-12.000	SREF 4.4119 SQ.FT.
(B02068)	B26C9G 5M7F 8J43V  1E28V8RSX10	-10.000	.125	.000	-12.000	LREF 19.2259 INCHES
(B02075)	B26C9G 5M7F 8J43V  1E28V8RSX10	-10.000	.285	.000	-12.000	BREF 37.9359 INCHES
(B02312)	B26C9G 5M7F 8J43V  1E28V8RSX10	-10.000		.000	-12.000	XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405

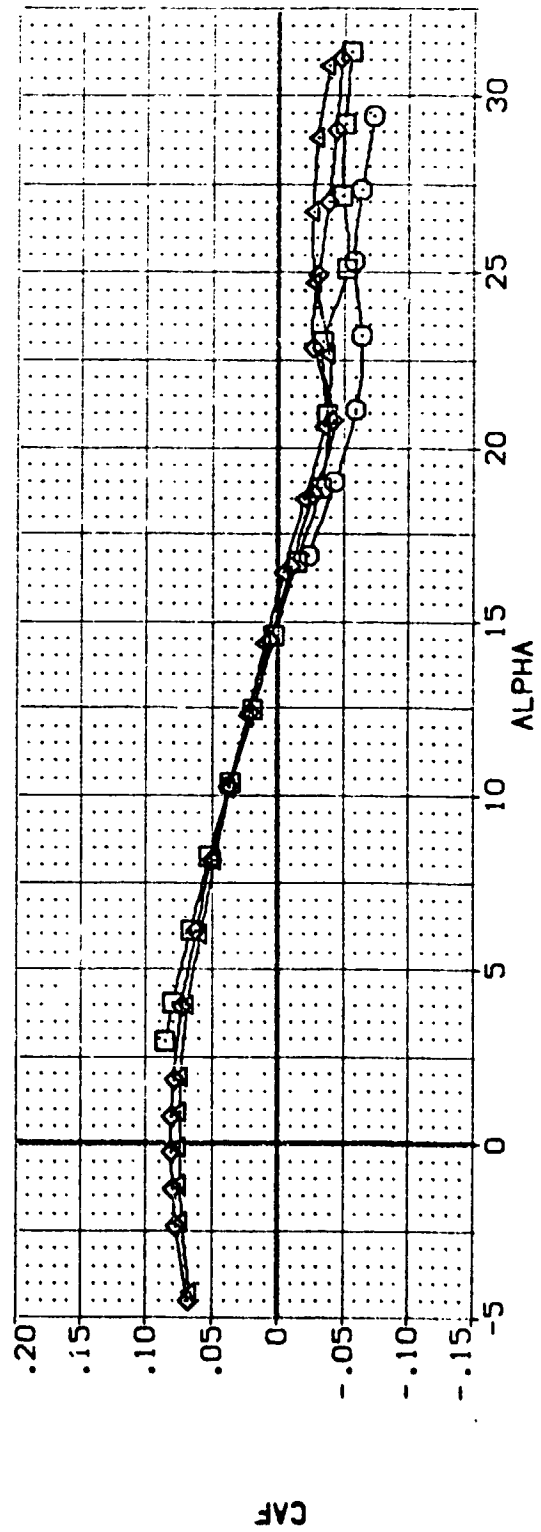
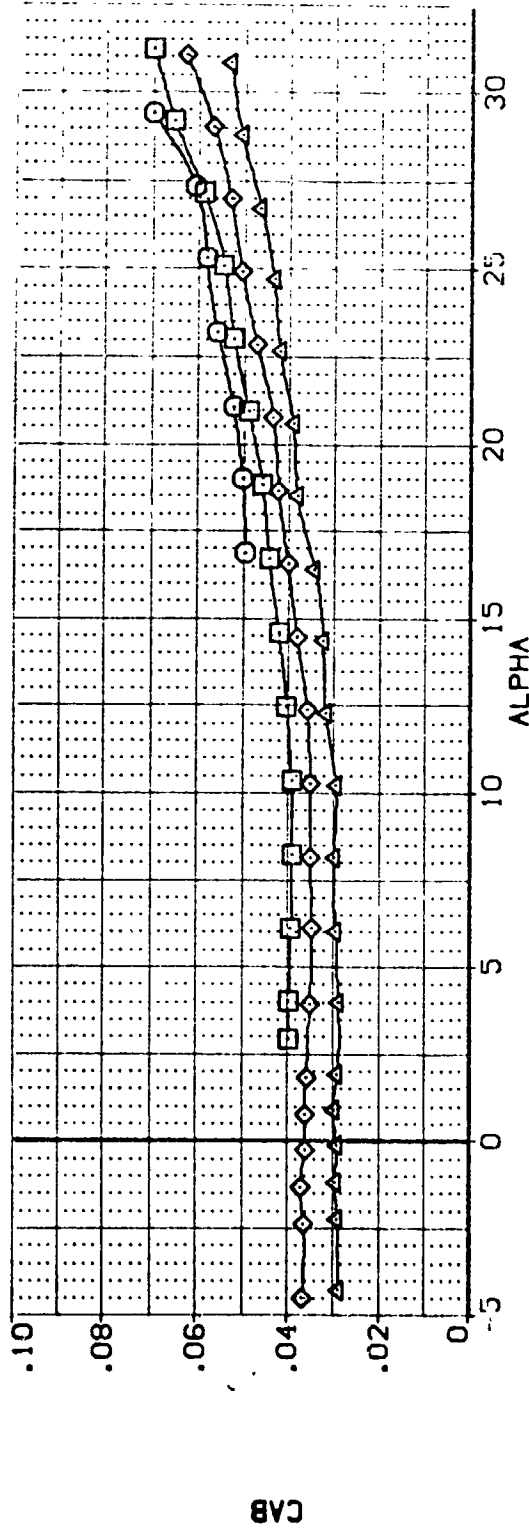


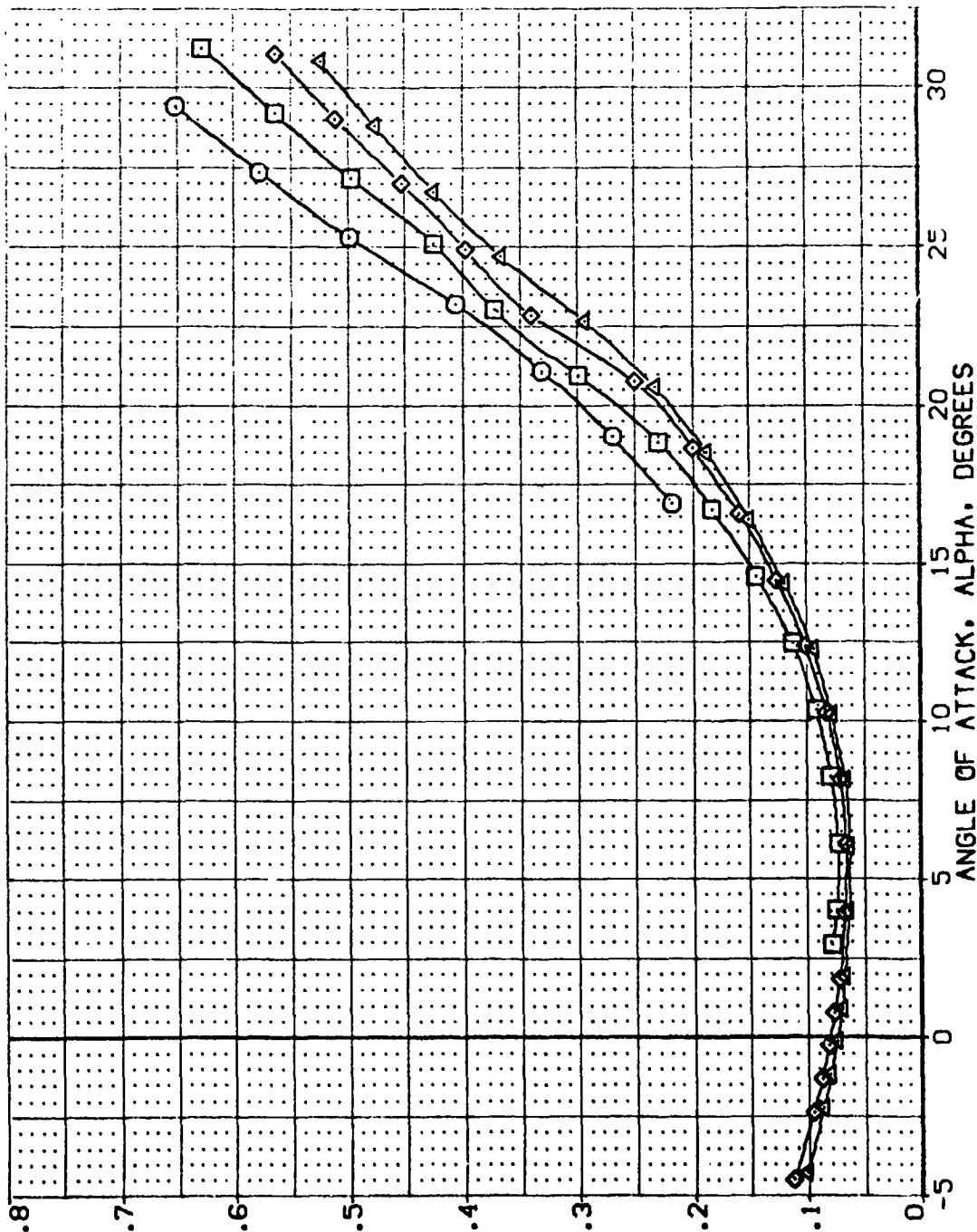
FIG 17 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -10

(A)MACH = .20

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(802065) 01628 826C9615M7F8J43V116E28V85X10  
 (802068) 01628 826C9615M7F8J43V116E28V85X10  
 (802075) 01628 826C9615M7F8J43V116E28V85X10  
 (802312) 01628 826C9615M7F8J43V116E28V85X10

ELEVON H/BW SPOBRK BOFLAP REFERENCE INFORMATION  
 -10.000 .035 .000 -12.000 SREF 4.4119 SQ.FT. INCHES  
 -10.000 .125 .000 -12.000 LREF 19.2299 INCHES  
 -10.000 .285 .000 -12.000 XMRP 37.9359 INCHES  
 -10.000 .000 .000 -12.000 YMRP 43.5974 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 INCHES



FOREBODY DRAG COEFFICIENT, CDF

FIG 17 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -10

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02065)	QAE28 B26C9G1SM7F8J43V116E28V8R5X10	-10.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B02068)	QAE28 B26C9G1SM7F8J43V116E28V8R5X10	-10.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02075)	QAE28 B26C9G1SM7F8J43V116E28V8R5X10	-10.000	.285	.000	-12.000	BREF 37.9359 INCHES
(B02312)	QAE28 B26C9G1SM7F8J43V116E28V8R5X10	-10.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

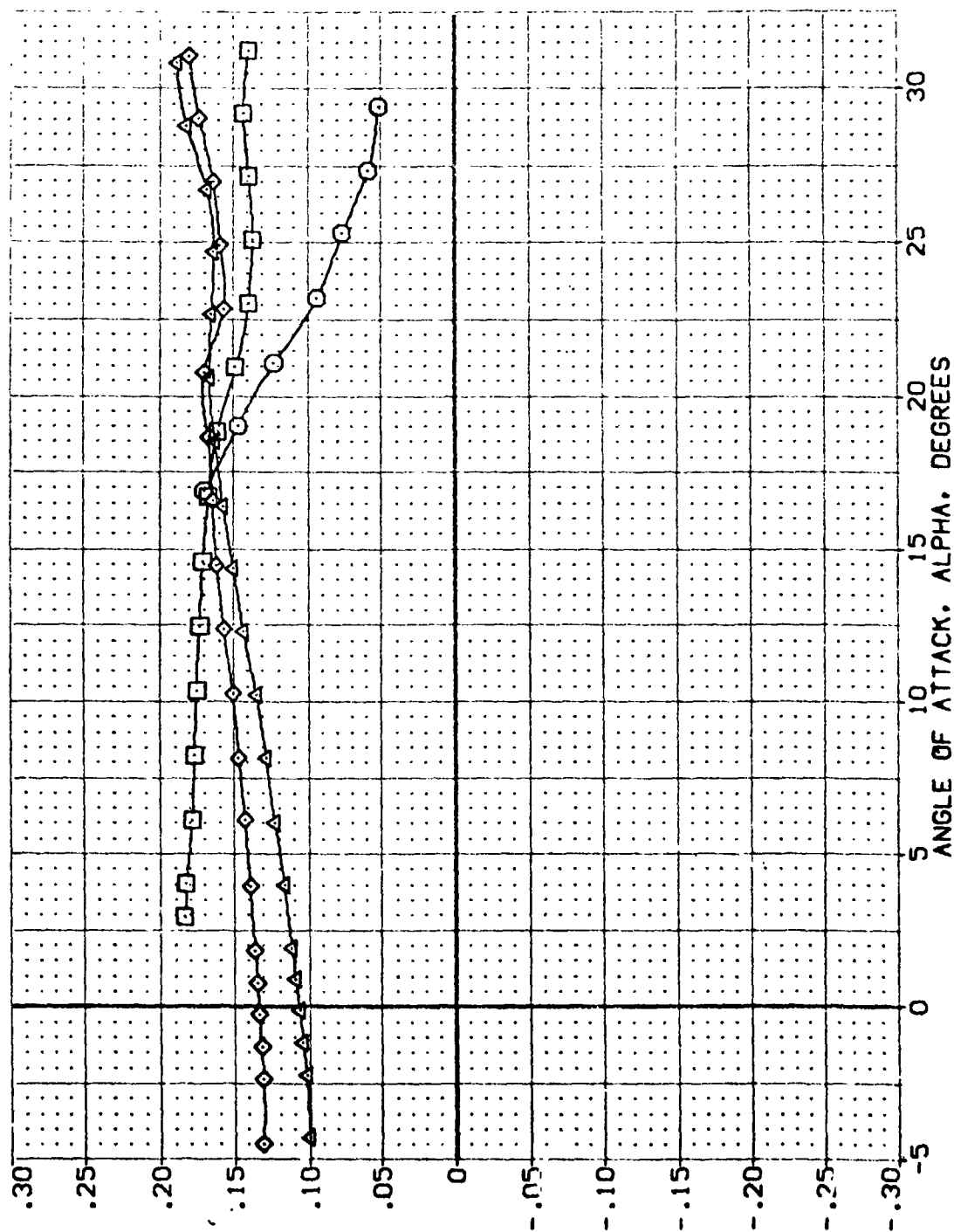


FIG 17 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES QMS ON, ELEVON = -10

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(802065)	QAS28	B26C9G1SM7F8J43V116E28V8RSX10
(802088)	QAS28	B26C9G1SM7F8J43V116E28V8RSX10
(802075)	QAS28	B26C9G1SM7F8J43V116E28V8RSX10
(802312)	QAS28	B26C9G1SM7F8J43V116E28V8RSX10

ELEVON H/BV SPOBRK BOFLAP REFERENCE INFORMATION

-10.000	.035	.000	-12.000	SREF	4.4119	50. FT.
-10.000	.125	.000	-12.000	LREF	19.2289	INCHES
-10.000	.265	.000	-12.000	BREF	37.9359	INCHES
-10.000		.000	-12.000	XMRP	43.5574	INCHES
				YMRP	.0000	INCHES
				ZMRP	15.1875	INCHES
				SCALE	.0405	SCALE

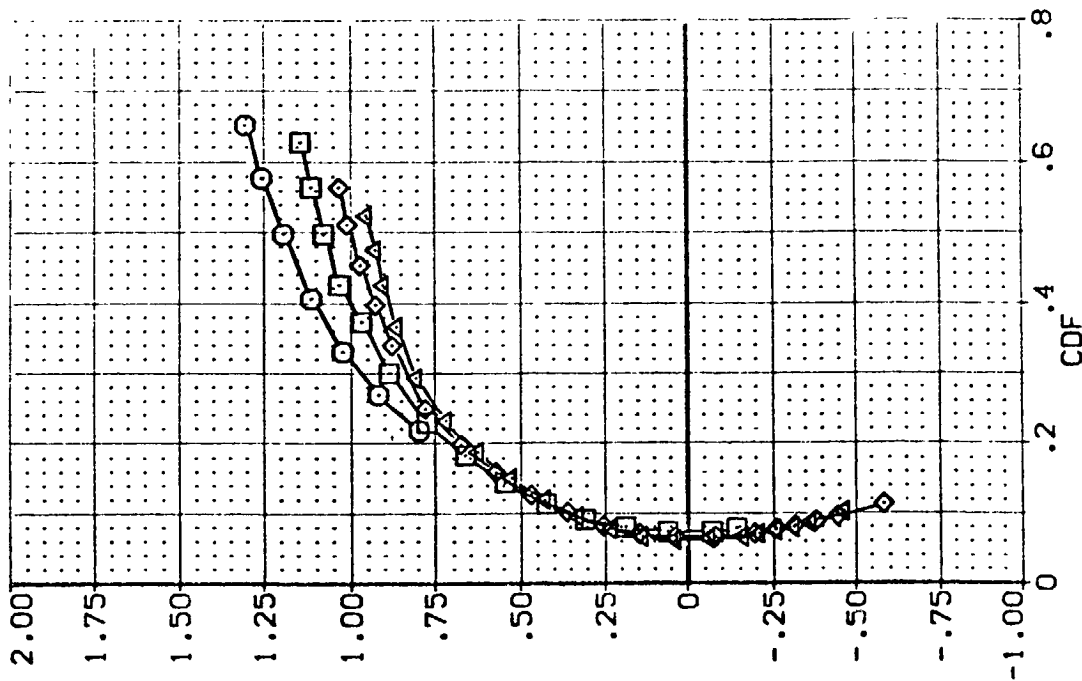
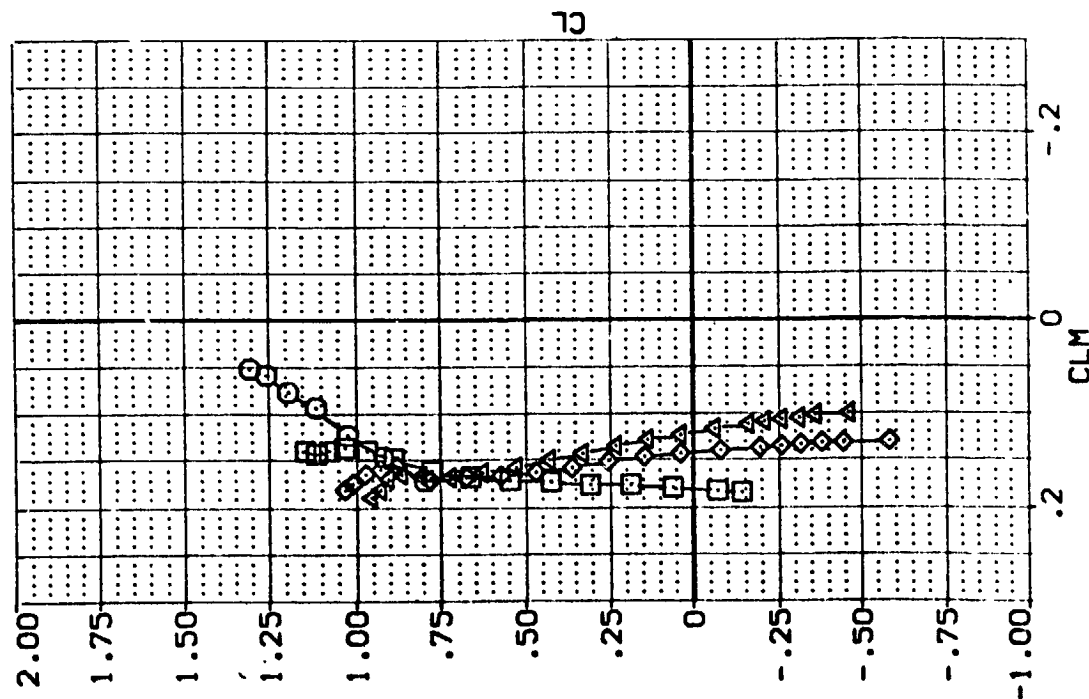


FIG 17 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -10  
(A)MACH = .20



4-1

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPDRK	BOFLAP	REFERENCE INFORMATION
(802055)	0A628 B26C9G15H7F8J13V11E28V8R5X10	-10.000	.035	.000	-12.000	SREF 4.4119 SQ.FT. INCHES
(802058)	0A628 B26C9G15H7F8J13V11E28V8R5X10	-10.000	.125	.000	-12.000	LREF 19.2299 INCHES
(802075)	0A628 B26C9G15H7F8J13V11E28V8R5X10	-10.000	.285	.000	-12.000	BREF 37.9359 INCHES
(802312)	0A628 B26C9G15H7F8J13V11E28V8R5X10	-10.000		.000	-12.000	XMRP 43.5974 INCHES
						ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

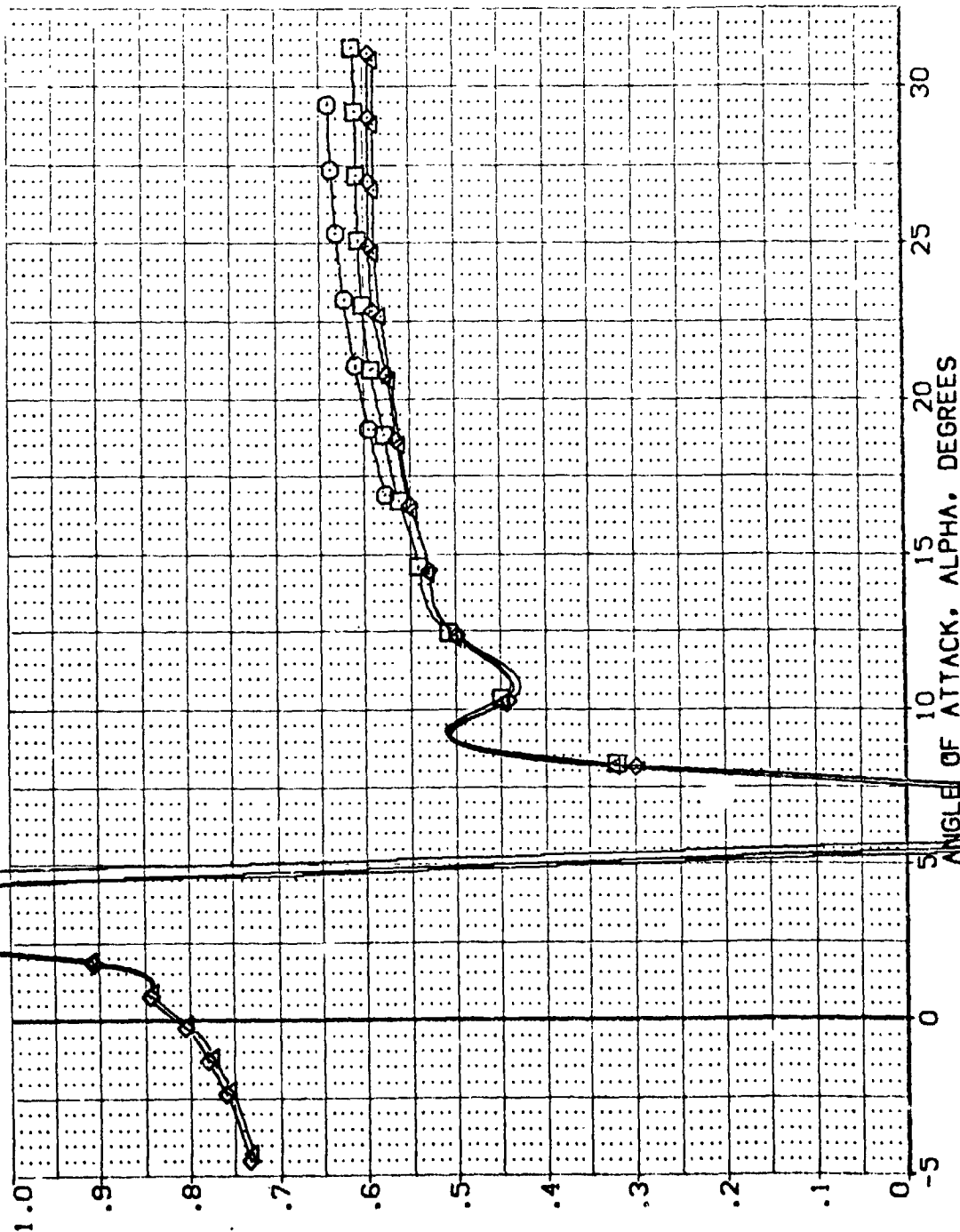


FIG 17 EFFECT OF GROUND HT. UNDERWING PODDED ENGINES ON, ELEVON = -10  
(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(802065)	QAG28	B26C9G1SMTF8J43V116E28V85X10
(802068)	QAG28	B26C9G1SMTF8J43V116E28V85X10
(802075)	QAG28	B26C9G1SMTF8J43V116E28V85X10
(802312)	QAG28	B26C9G1SMTF8J43V116E28V85X10

ELEVON

-10.000	SPDRK	BOFLAP	REFERENCE INFORMATION
-10.000	.000	-12.000	SREF 4.4119 SO.FT.
-10.000	.000	-12.000	LREF 19.2299 INCHES
-10.000	.000	-12.000	XMRP 37.9359 INCHES
-10.000	.000	-12.000	YMRP 43.5974 INCHES
-10.000	.000	-12.000	ZMRP .0000 INCHES
-10.000	.000	-12.000	SCALE 15.1875 INCHES
-10.000	.000	-12.000	SCALE .0405

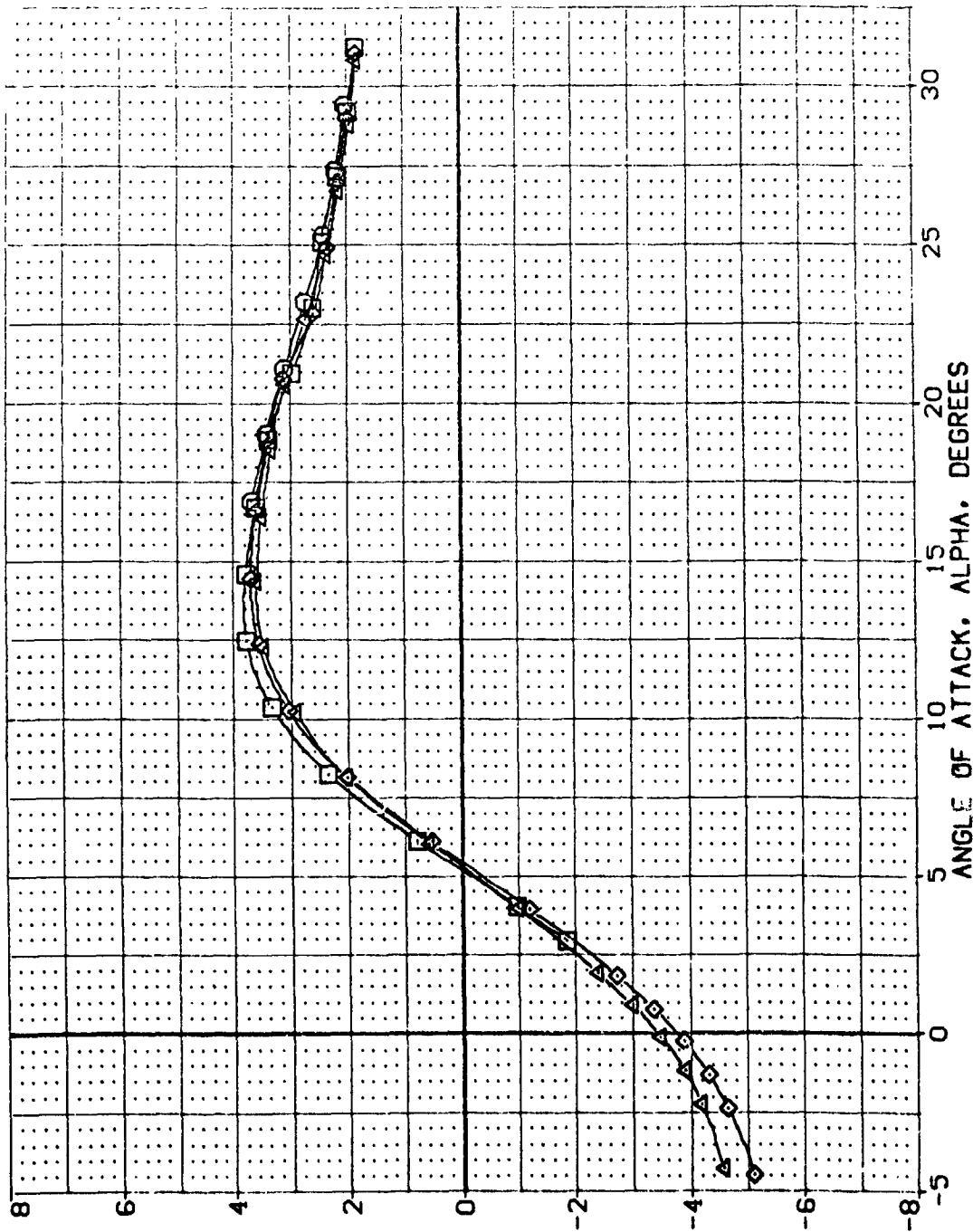


FIG 17 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -10  
(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(B02066)	0A52B	B26C9G1	5M7F8J43V116E28V8RSX10
(B02067)	0A52B	B26C9G1	5M7F8J43V116E28V8RSX10
(B02076)	0A52B	B26C9G1	5M7F8J43V116E28V8RSX10
(B02313)	0A52B	B26C9G1	5M7F8J43V116E28V8RSX10

ELEVON M/SB SPOBRK BOFLAP REFERENCE INFORMATION

-20.000	.035	.000	-12.000	SREF	4.4119	50. FT.
-20.000	.125	.000	-12.000	LREF	19.2298	INCHES
-20.000	.285	.000	-12.000	BREF	37.9359	INCHES
				YMRP	43.5974	INCHES
				ZMRP	.0000	INCHES
				SCALE	15.1875	INCHES
					.0405	SCALE

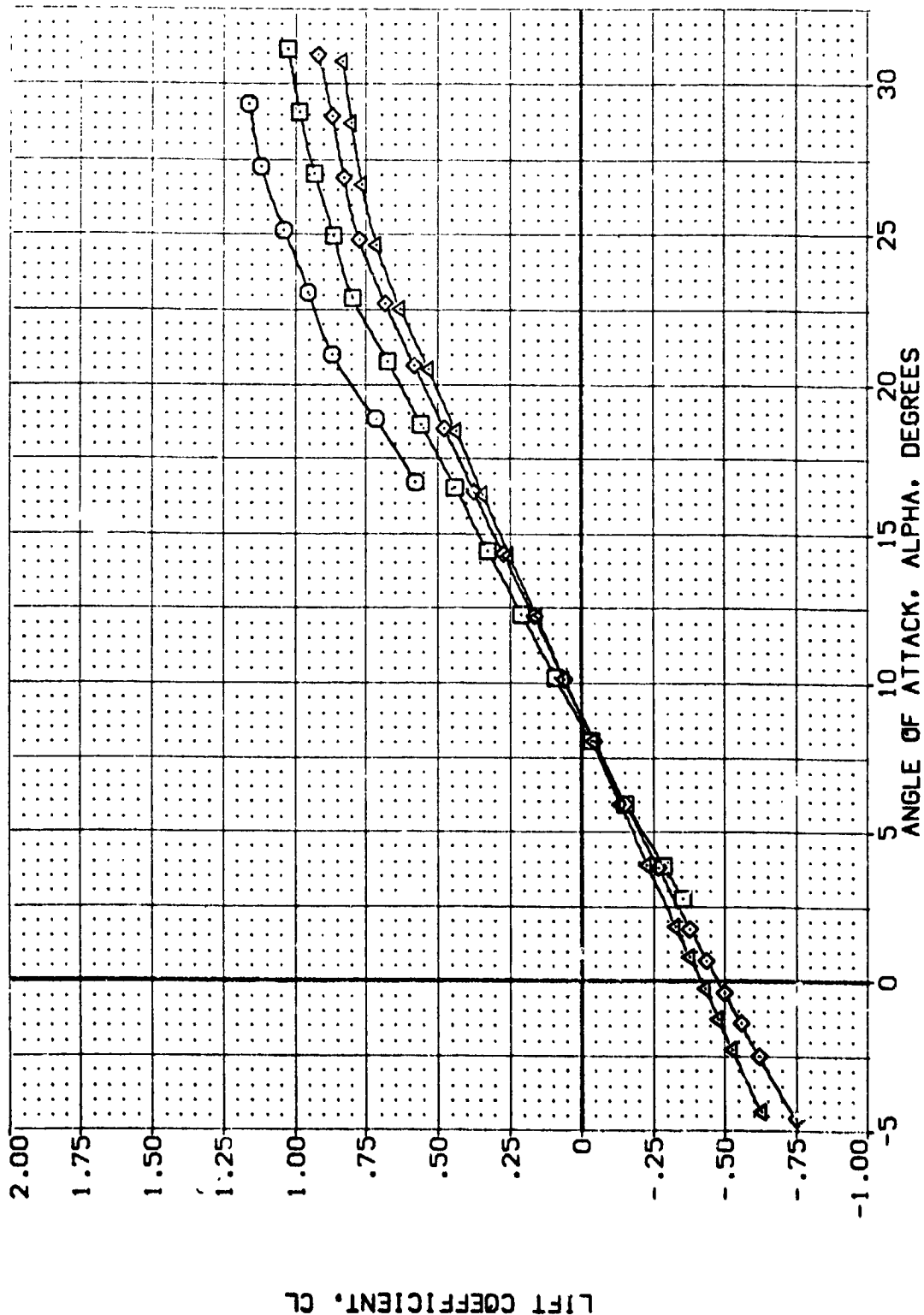


FIG 18 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -20

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	W/BV	SPDRX	BOFLAP	REFERENCE INFORMATION
(B02056)	0A628 B26C9G SMT78J43W 16E28V8K5X10	-20.000	.035	.000	-12.000	SREF 4.4119 SO.FT.
(B02067)	0A628 B26C9G SMT78J43W 16E28V8K5X10	-20.000	.125	.000	-12.000	LREF 19.2293 INCHES
(B02076)	0A628 B26C9G SMT78J43W 16E28V8K5X10	-20.000	.225	.000	-12.000	BREF 3.9333 INCHES
(B02313)	0A628 B26C9G SMT78J43W 16E28V8K5X10	-20.000		.000	-12.000	YMRP 43.5974 INCHES
						ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

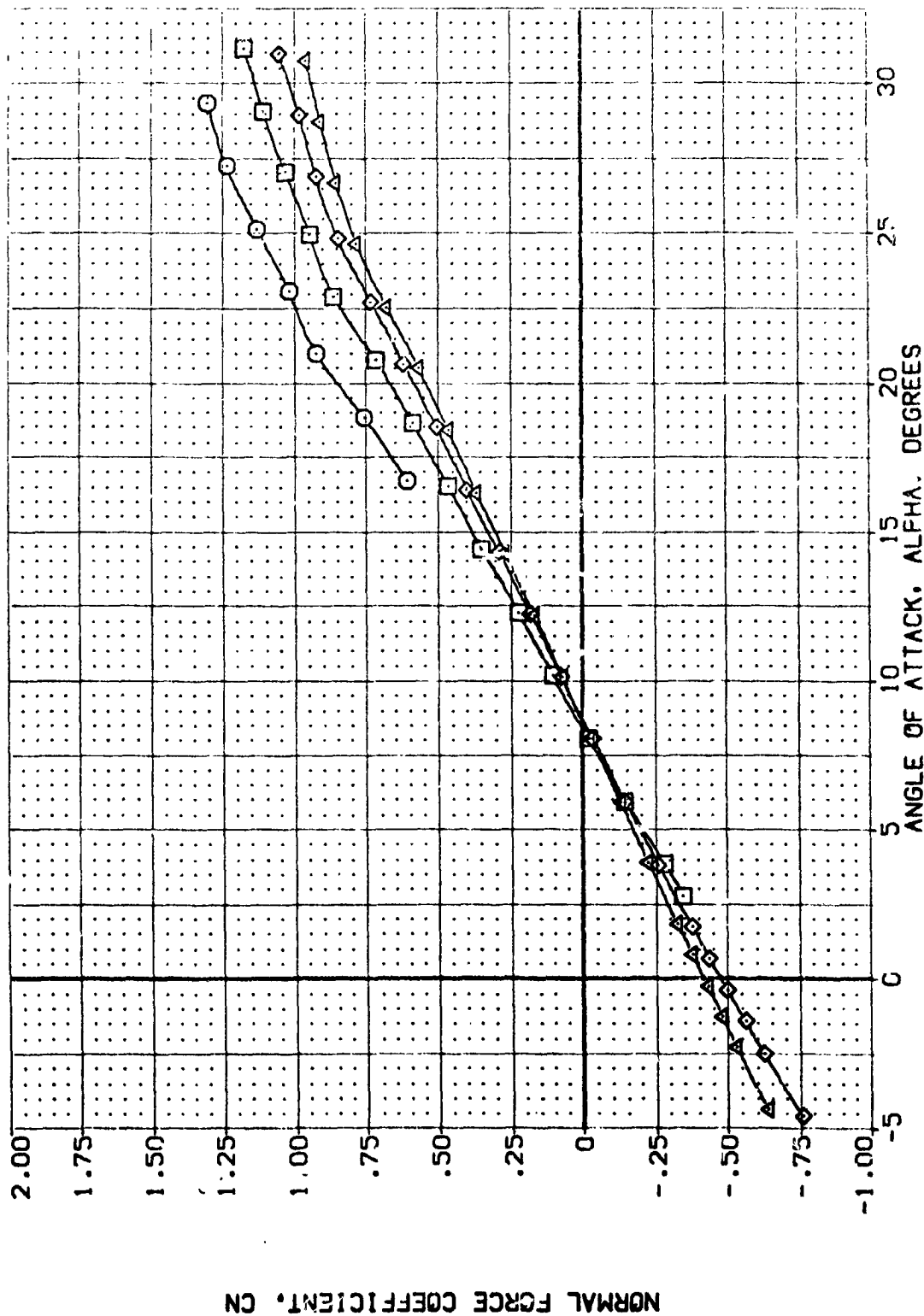


FIG 16 EFFECT OF GROUND HT, UNDERWING PODDED ENGINES OMS ON, ELEVON = -20  
(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802065) QAS28 B26C9G1 547F8J43V11 1E28V85X10  
 (802067) QAS28 B26C9G1 547F8J43V11 1E28V85X10  
 (802076) QAS28 B26C9G1 547F8J43V11 1E28V85X10  
 (802313) QAS28 B26C9G1 547F8J43V11 1E28V85X10

ELEVON H/VB/S S/DOR/ BOV LAP REFERENCE INFORMATION  
 -20.000 .025 .000 -12.000 SREF 4.419 SQ.FT.  
 -20.000 .123 .000 -12.000 LREF 19.2799 INCHES  
 -20.000 .285 .000 -12.000 XMRP 37.9359 INCHES  
 -20.000 .000 .000 -12.000 YMRP 43.5974 INCHES  
 ZMRP 0.000 INCHES  
 SCALE 15.1875 INCHES  
 .0405 SCALE

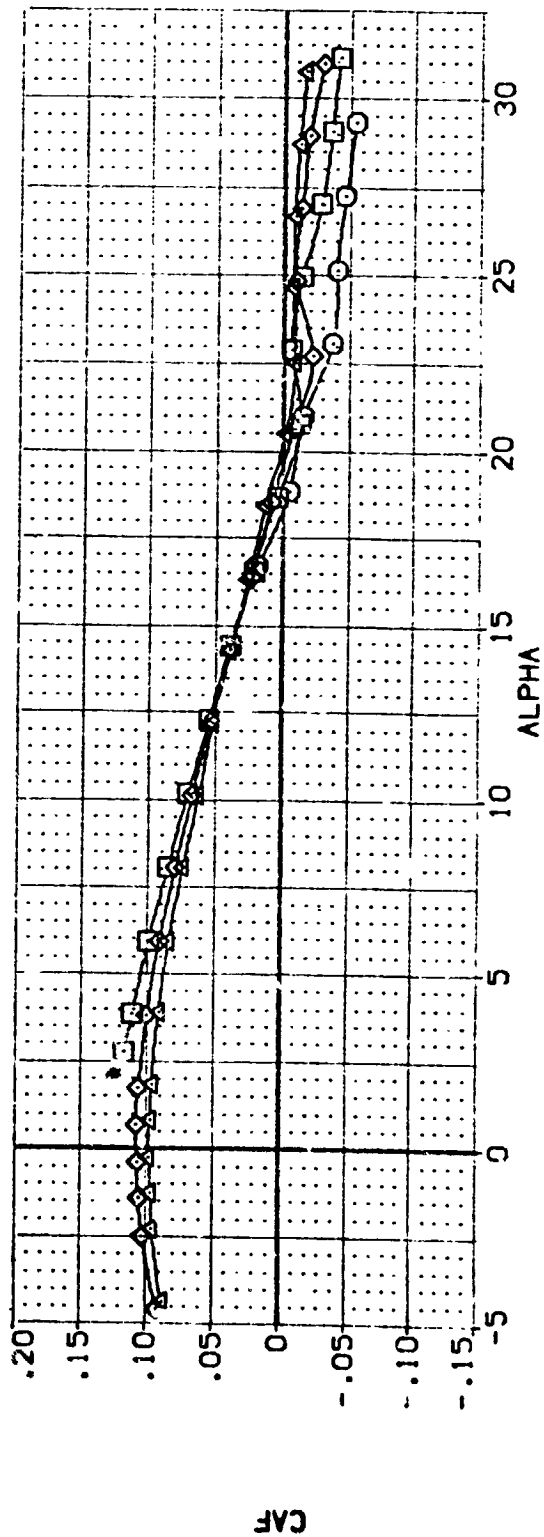
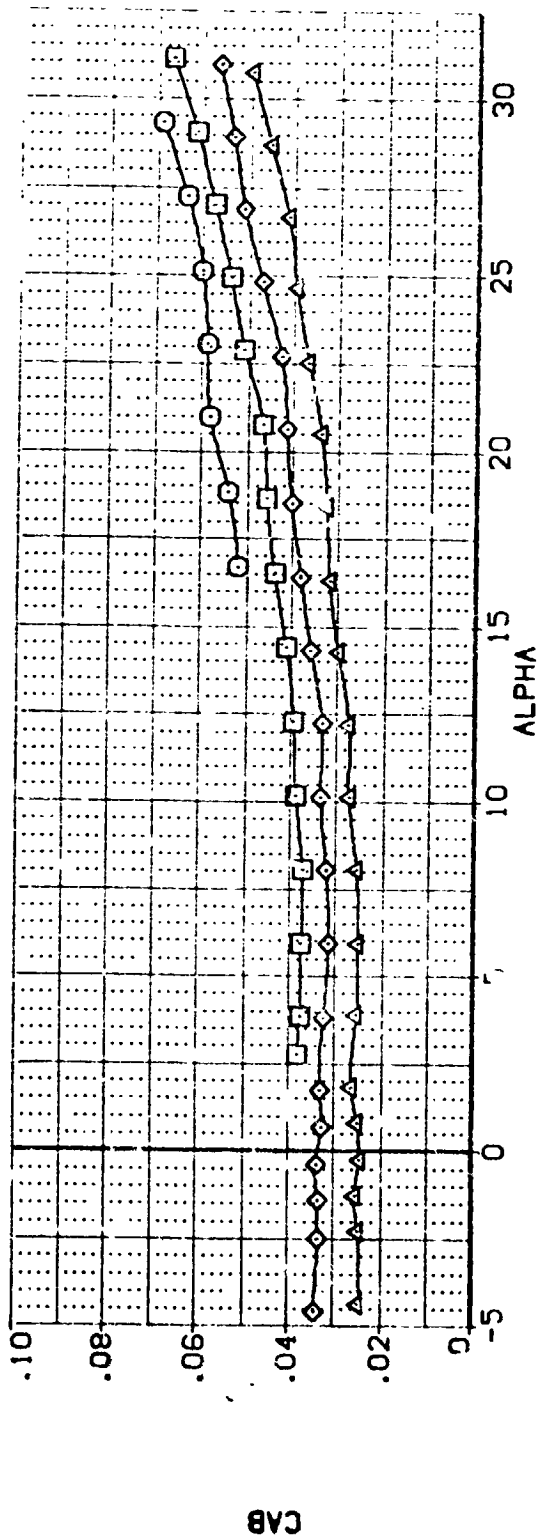


FIG 18 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -20

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPGRY	BOFLAP	REFERENCE INFORMATION
(B02066)	0A628 B26C9G 547F8J43V  6E28V8R5X10	-20.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B02067)	0A628 B26C9G 547F8J43V  6E28V8R5X10	-20.000	.125	.000	-12.000	LREF 19.2289 INCHES
(B02076)	0A628 B26C9G 547F8J43V  6E28V8R5X10	-20.000	.285	.000	-12.000	BREF 37.9339 INCHES
(B02313)	0A628 B26C9G 547F8J43V  6E28V8R5X10	-20.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

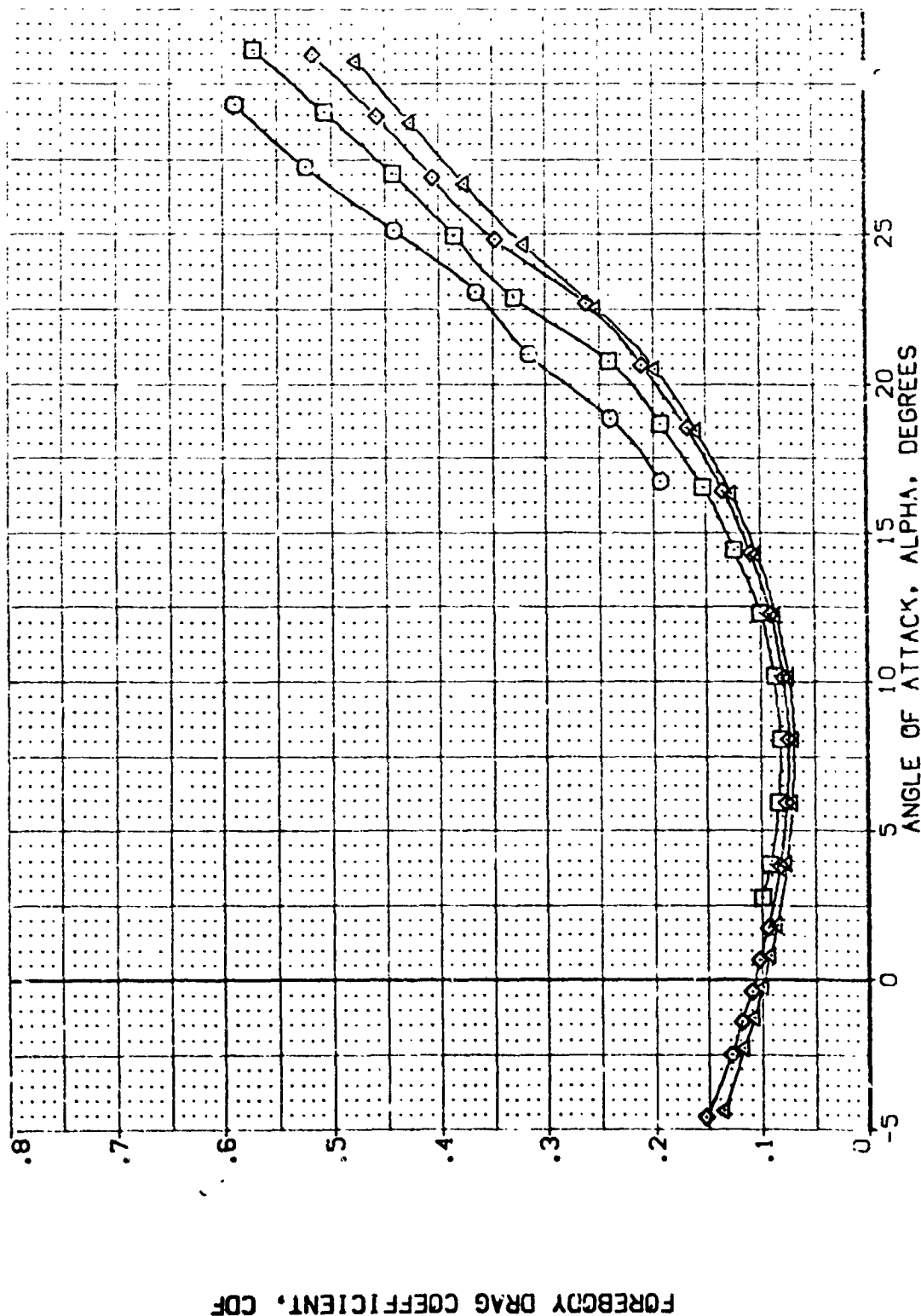


FIG 18 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/VN	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02056)	0A628 B26C9G1547F8J43V116E28V8RSX10	-20.000	.035	.000	-12.000	SREF 4.4119 SO.FT.
(B02057)	0A628 B26C9G1547F8J43V116E23V8RSX10	-20.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02076)	0A628 B26C9G1547F8J43V116E28V8RSX10	-20.000	.285	.000	-12.000	BREF 37.9353 INCHES
(B02313)	0A628 B26C9G1547F8J43V116E28V8RSX10	-20.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 SCALE

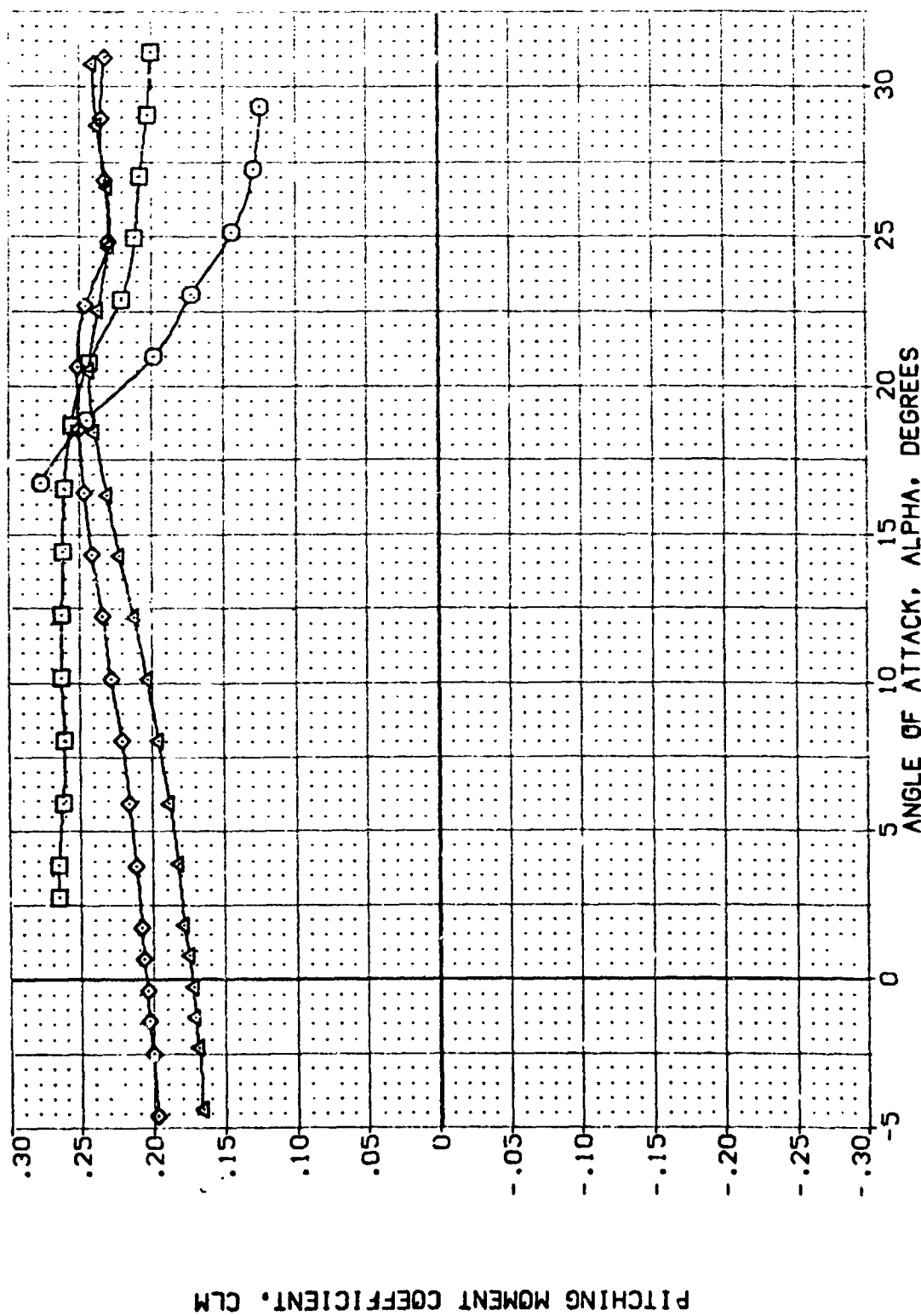


FIG 18 EFFECT OF GROUND HT., UNDERWING POODED ENGINES OMS ON, ELEVON = -20  
(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02066) 0A628 B26C9G1547F8U43V116E28V8K5X10  
 (B02067) 0A628 B26C9G1547F8U43V116E28V8K5X10  
 (B02076) 0A628 B26C9G1547F8U43V116E28V8K5X10  
 (B02313) 0A628 B26C9G1547F8U43V116E28V8K5X10

ELEVON H/WB SPOORR BOFLAP REFERENCE INFORMATION  
 -20.000 .025 .000 -12.000 SREF 4.4119 50.000  
 -20.000 .125 .000 -12.000 LREF 19.2293 INCHES  
 -20.000 .265 .000 -12.000 BREF 37.9359 INCHES  
 -20.000 .000 .000 -12.000 XMRP 43.5974 INCHES  
 -20.000 .000 .000 -12.000 YMRP 0.0000 INCHES  
 -20.000 .000 .000 -12.000 ZMRP 15.1875 INCHES  
 -20.000 .000 .000 -12.000 SCALE .0405 INCHES

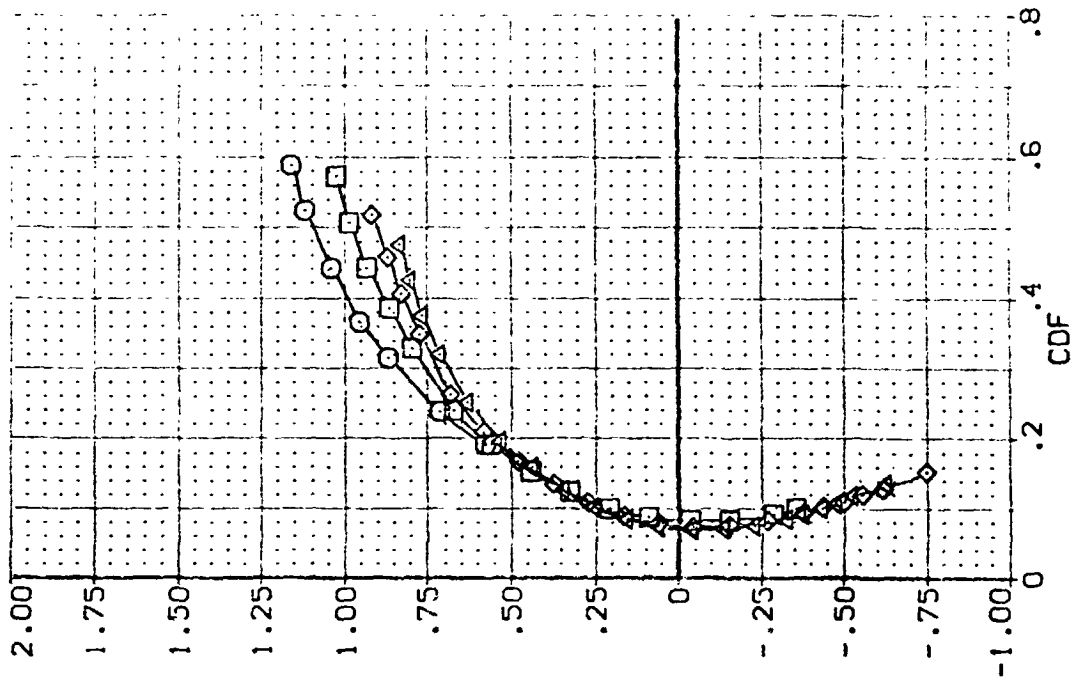
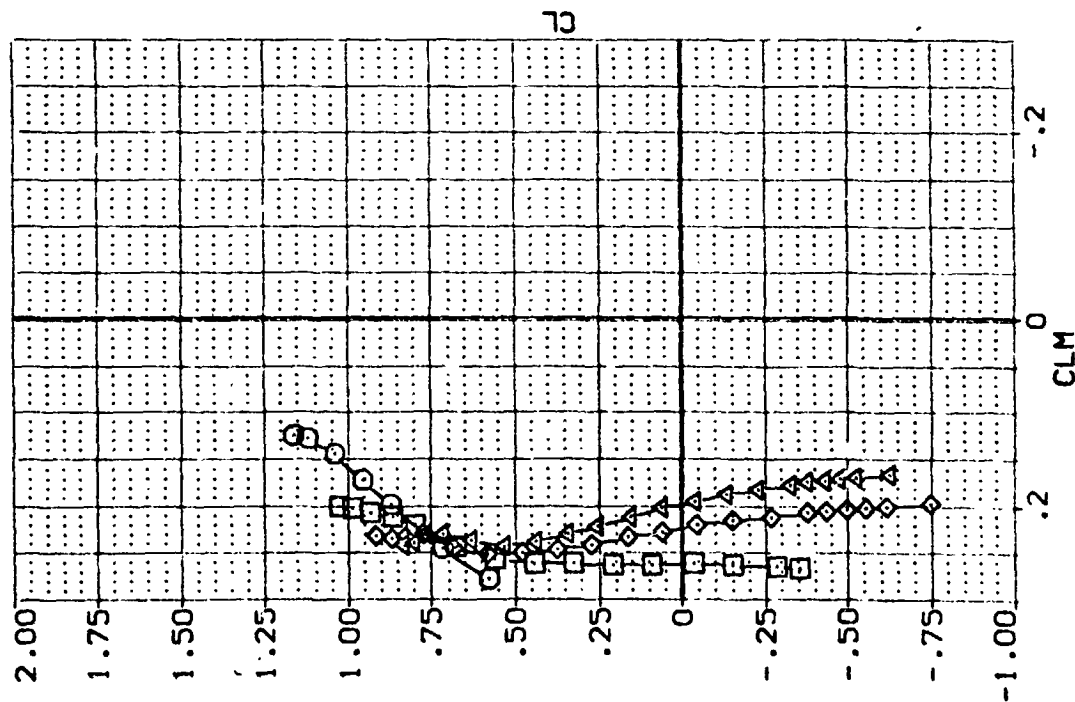


FIG 18 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -20  
 (A)MACH = .20





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	W/BV	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02066)	0A628 B26C9G1SM7F8J43V116E28VBR5X10	-20.000	.035	.000	-12.000	SREF 4.4119 SQ.FT.
(B02067)	0A628 B26C9G1SM7F8J43V116E28VBR5X10	-20.000	.125	.000	-12.000	LREF 19.2298 INCHES
(B02076)	0A628 B26C9G1SM7F8J43V116E28VBR5X10	-20.000	.285	.000	-12.000	BREF 37.9359 INCHES
(B02313)	0A628 B26C9G1SM7F8J43V116E28VBR5X10	-20.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

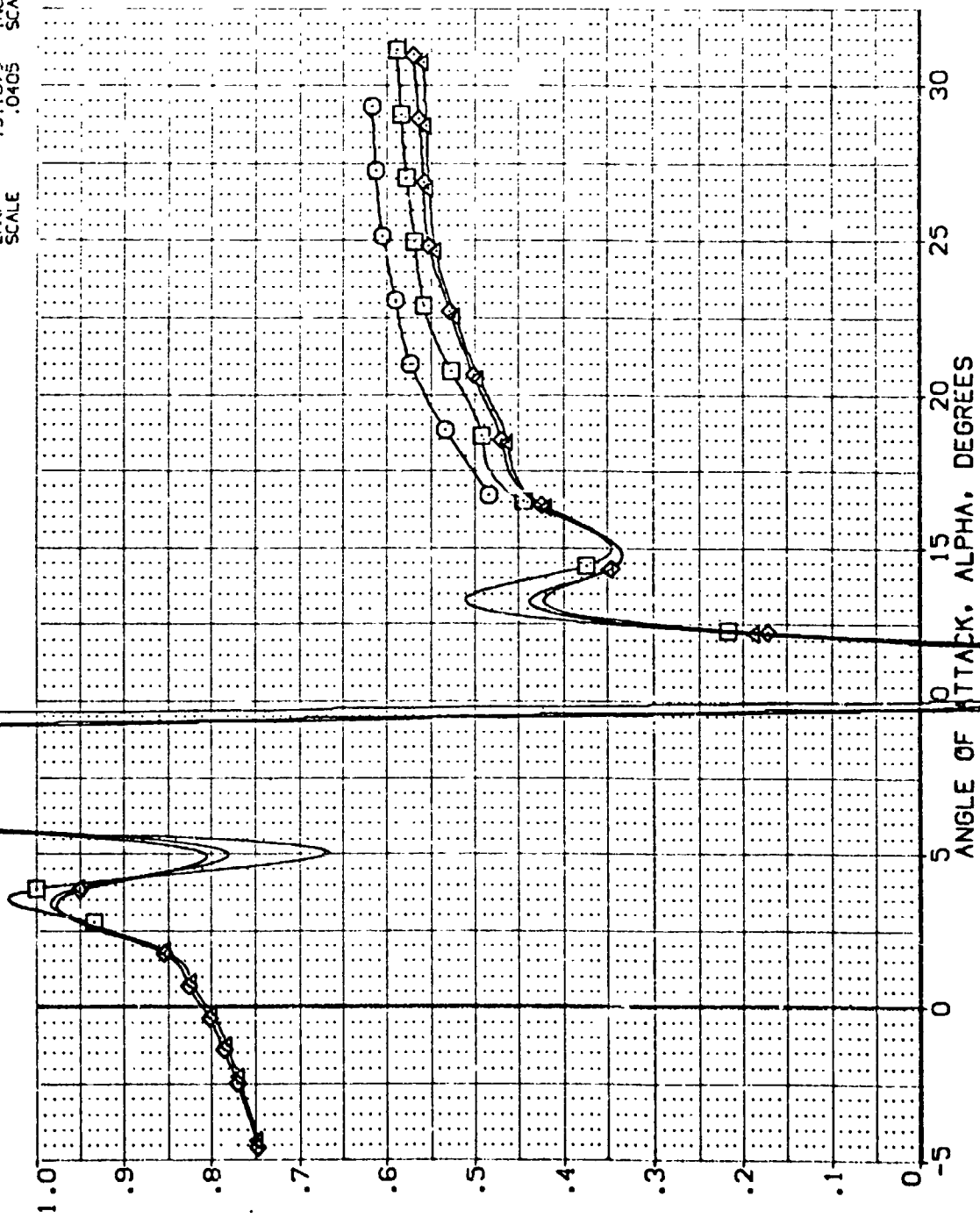


FIG 18 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -20  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	HUBV	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02066)	0A628 B26C5G1547F8J43V116E28VBR5X10	-20.000	.035	.000	-12.000	SREF 4.4113 SQ.FT.
(B02067)	0A628 B26C5G1547F8J43V116E28VBR5X10	-20.000	.125	.000	-12.000	LREF 19.2299 INCHES
(B02076)	0A628 B26C5G1547F8J43V116E28VBR5X10	-20.000	.265	.000	-12.000	BREF 37.9359 INCHES
(B02313)	0A628 B26C5G1547F8J43V116E28VBR5X10	-20.000		.000	-12.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1675 INCHES
						SCALE .0405

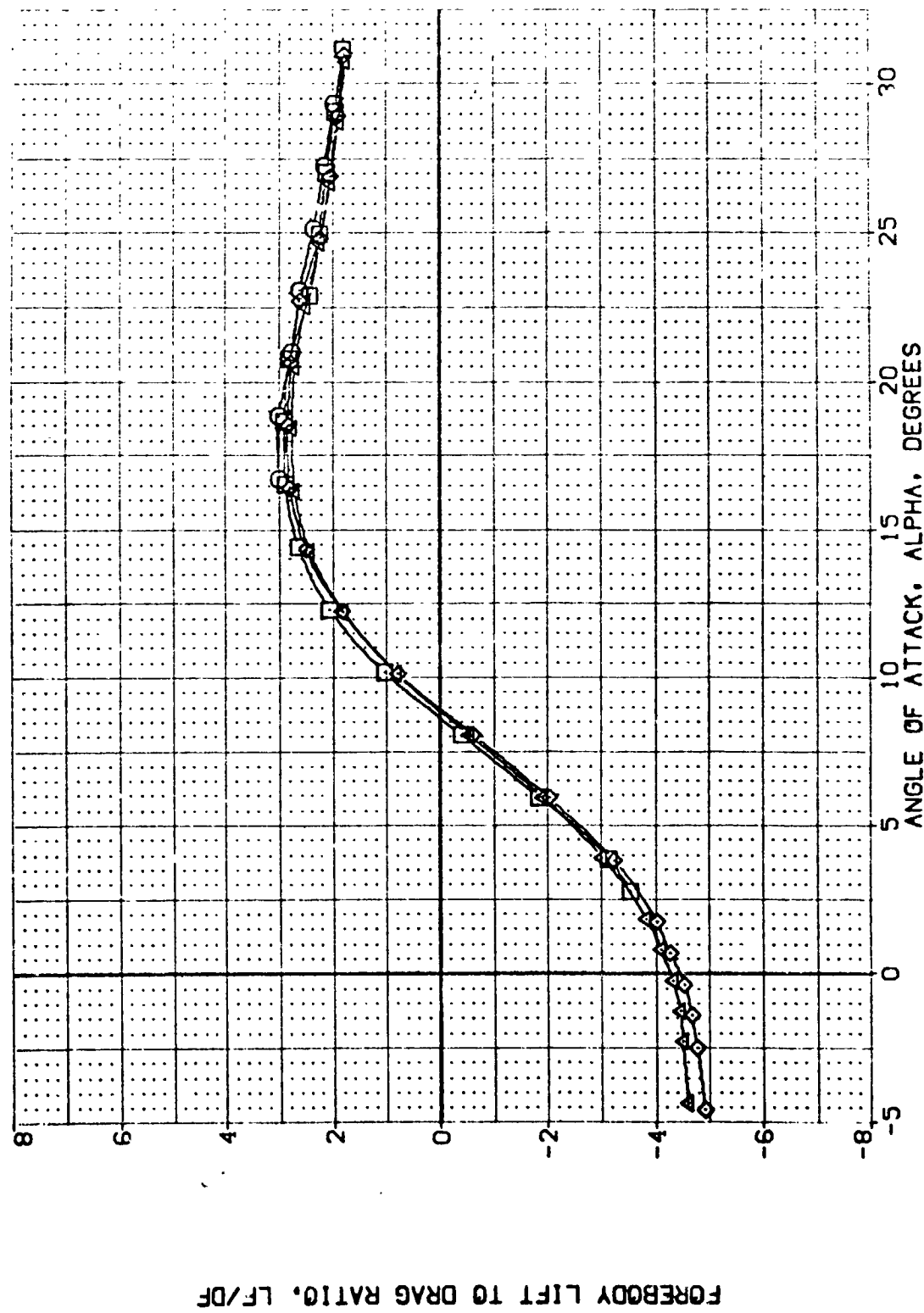


FIG 18 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, ELEVON = -20  
 (A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02071)	QAG28 B26C9G1 SM7F 8J43V116E28V8RSX10	.000	.125	.000	22.000	SREF 4.4119 SO.FT.
(B02072)	QAG28 B26C9G1 SM7F 8J43V116E28V8RSX10	.000	.285	.000	22.000	LREF 19.2299 INCHES
(B02310)	QAG28 B26C9G1 SM7F 8J43V116E28V8RSX10	.000		.000	22.000	BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 SCALE

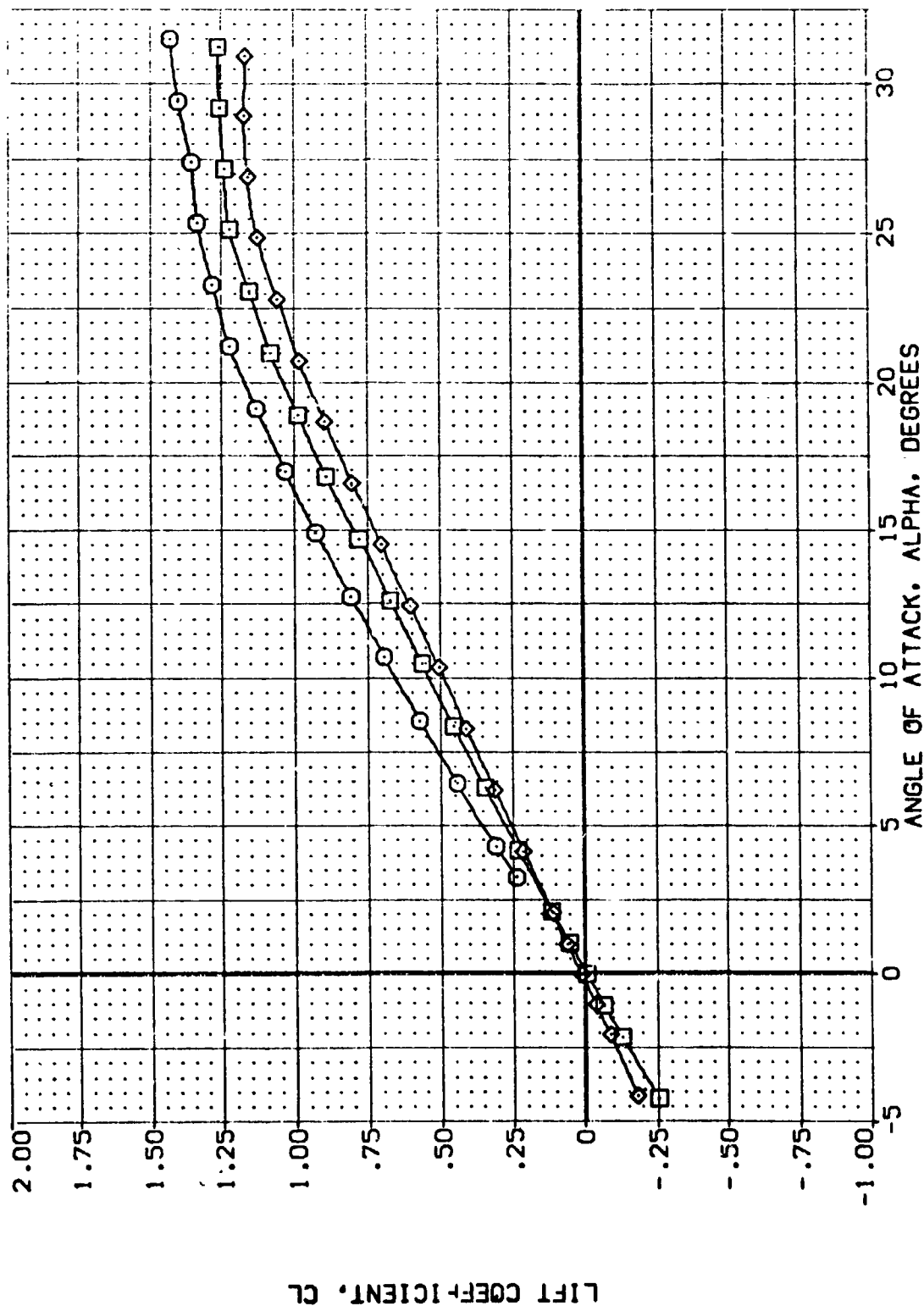


FIG 19 EFFECT OF GROUND HT., UNDERWING POODED ENGINES OMS ON, BOFLAP = 22.5  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/V	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02071)	QAS28 B26C9G1SM7F8J43V116E28V8K5X10	.000	.125	.000	22.000	SREF 4.4119 SQ.FT.
(B02072)	QAS28 B26C9G1SM7F8J43V116E28V8K5X10	.000	.285	.000	22.000	LREF 19.2299 INCHES
(B02310)	QAS28 B26C9G1SM7F8J43V116E28V8K5X10	.000		.000	22.000	BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

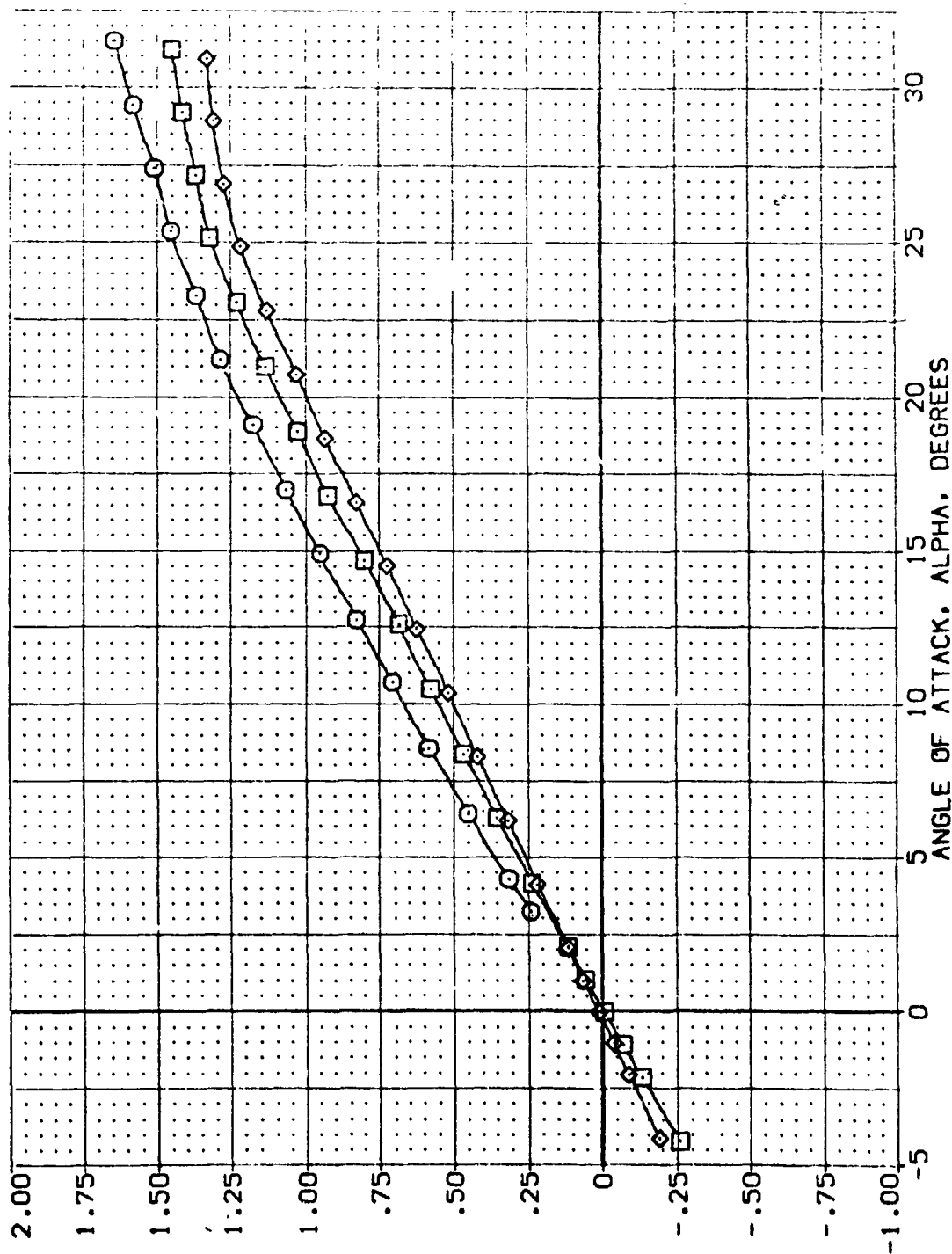


FIG 19 EFFECT OF GROUND HT., UNDERWING POODED ENGINES OMS ON, BOFLAP = 22.5  
 MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEV	H/W	SPOBK	BOFLAP	REFERENCE INFORMATION
(B02071)	0A628 B26C9G15M7F8J43V116E28V85X10	.000	.125	.000	22.000	SREF 4.4119 SQ.FT.
(B02072)	0A628 B26C9G15M7F8J43V116E28V85X10	.000	.285	.000	22.000	LREF 19.2299 INCHES
(B02310)	0A628 B26C9G15M7F8J43V116E28V85X10	.000		.000	22.000	BRFF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

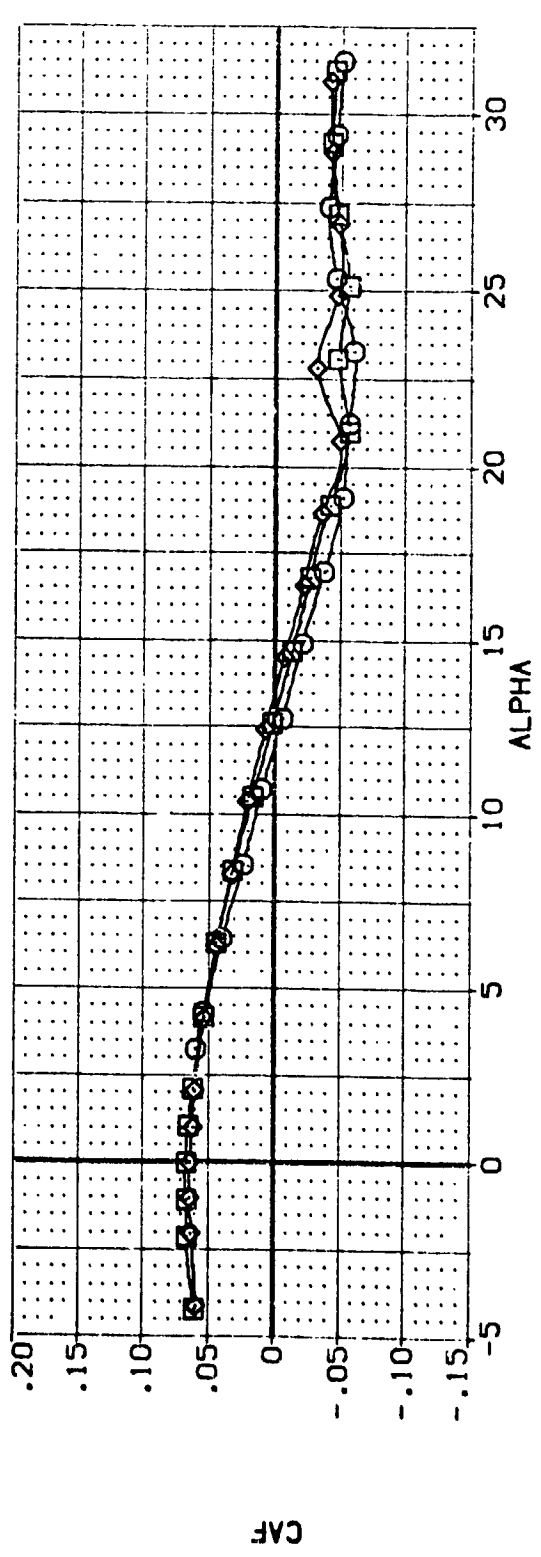
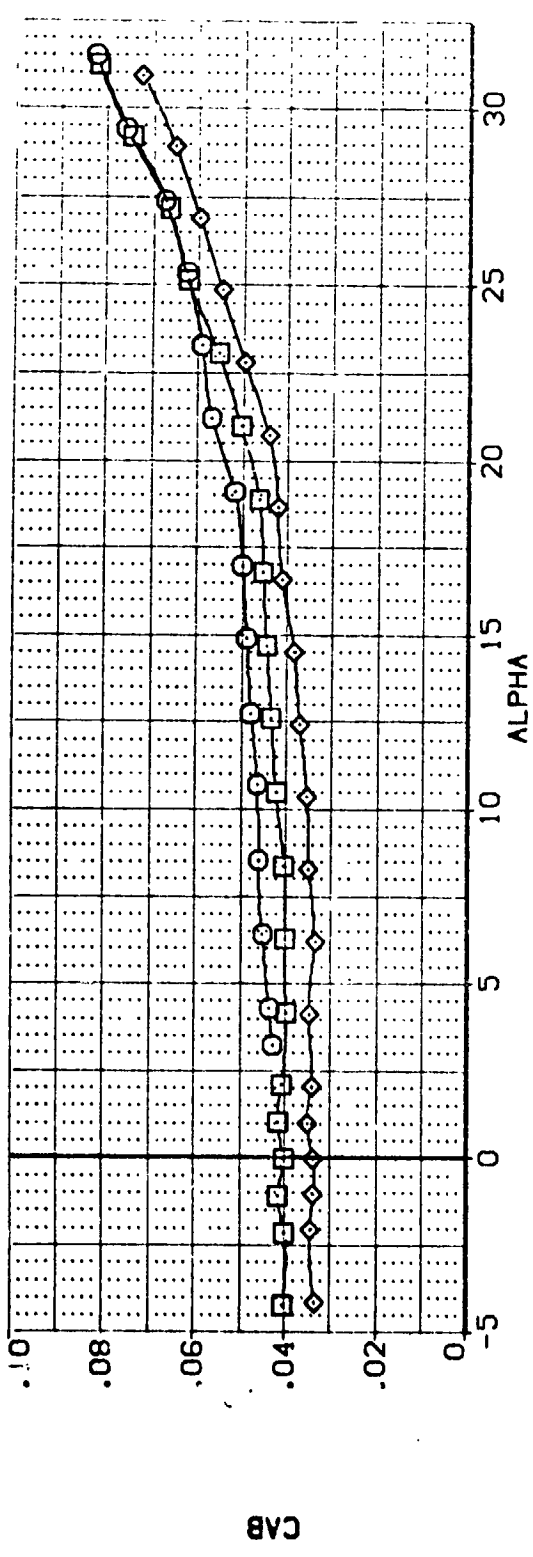


FIG 19 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES ON, BOFLAP = 22.5  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPOBRK	BDFLAP	REFERENCE INFORMATION
(B02071)	0A628 B26C9G15M7F8J43V116E28V8RSX10	.000	.125	.000	22.000	SREF 4.4119 SQ.FT.
(B02072)	0A628 B26C9G15M7F8J43V116E28V8RSX10	.000	.265	.000	22.000	LREF 19.2299 INCHES
(B02310)	0A628 B26C9G15M7F8J43V116E28V8RSX10	.000		.000	22.000	BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

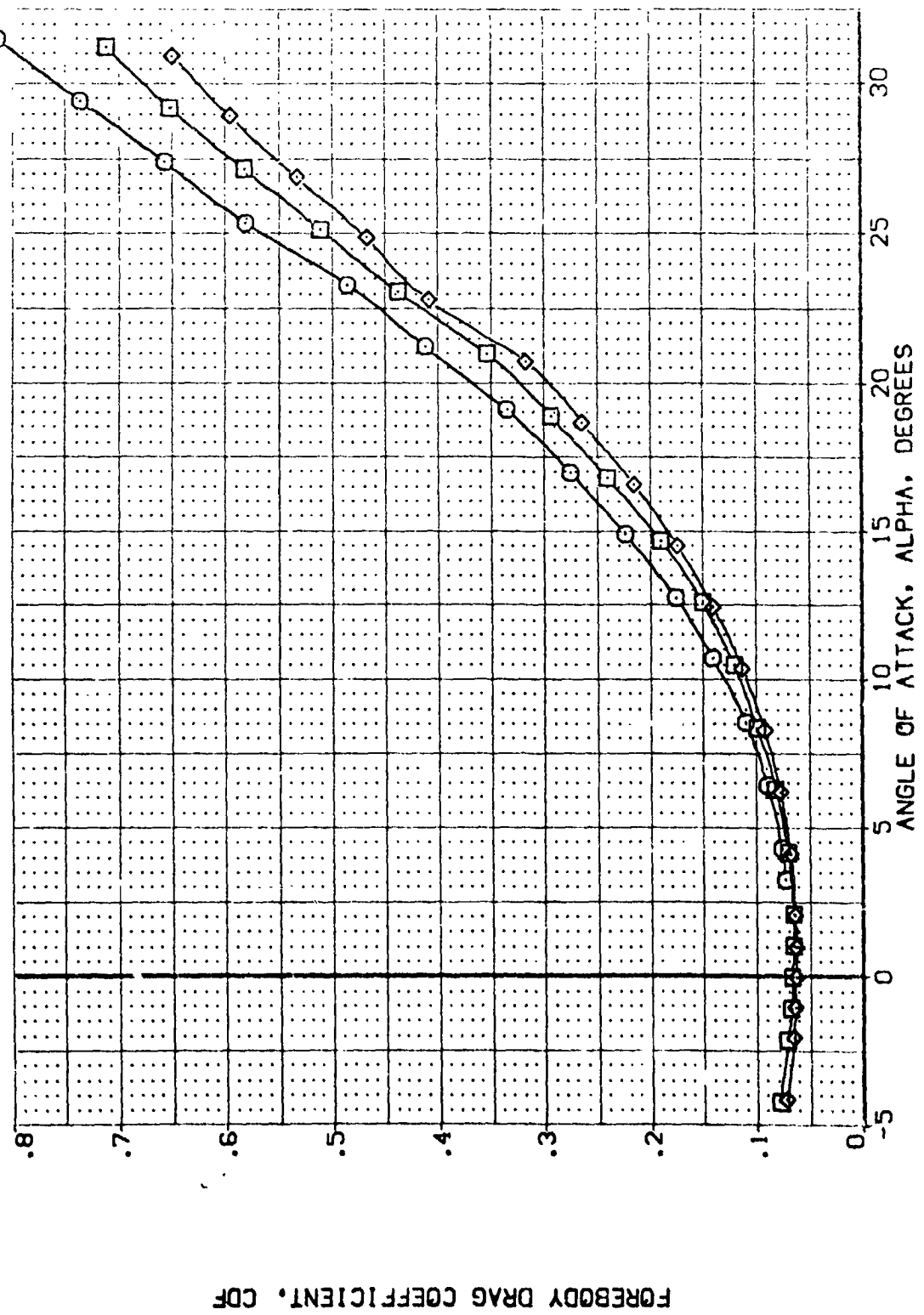


FIG 19 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, BDFLAP = 22.5  
 (A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPOBRK	BDFLAP	REFERENCE INFORMATION
(802071)	0A628 B26C5G 547F8J43V 16E28V8RSX10	.000	.125	.000	22.000	SREF 4.4119 SO.FT.
(802072)	0A628 B26C5G 547F8J43V 16E28V8RSX10	.000	.285	.000	22.000	LREF 19.2299 INCHES
(802310)	0A628 B26C5G 547F8J43V 16E28V8RSX10	.000		.000	22.000	BREF 37.5359 INCHES
						YMRP 43.5974 INCHES
						ZMRP .0000 INCHES
						SCALE 15.1875 INCHES

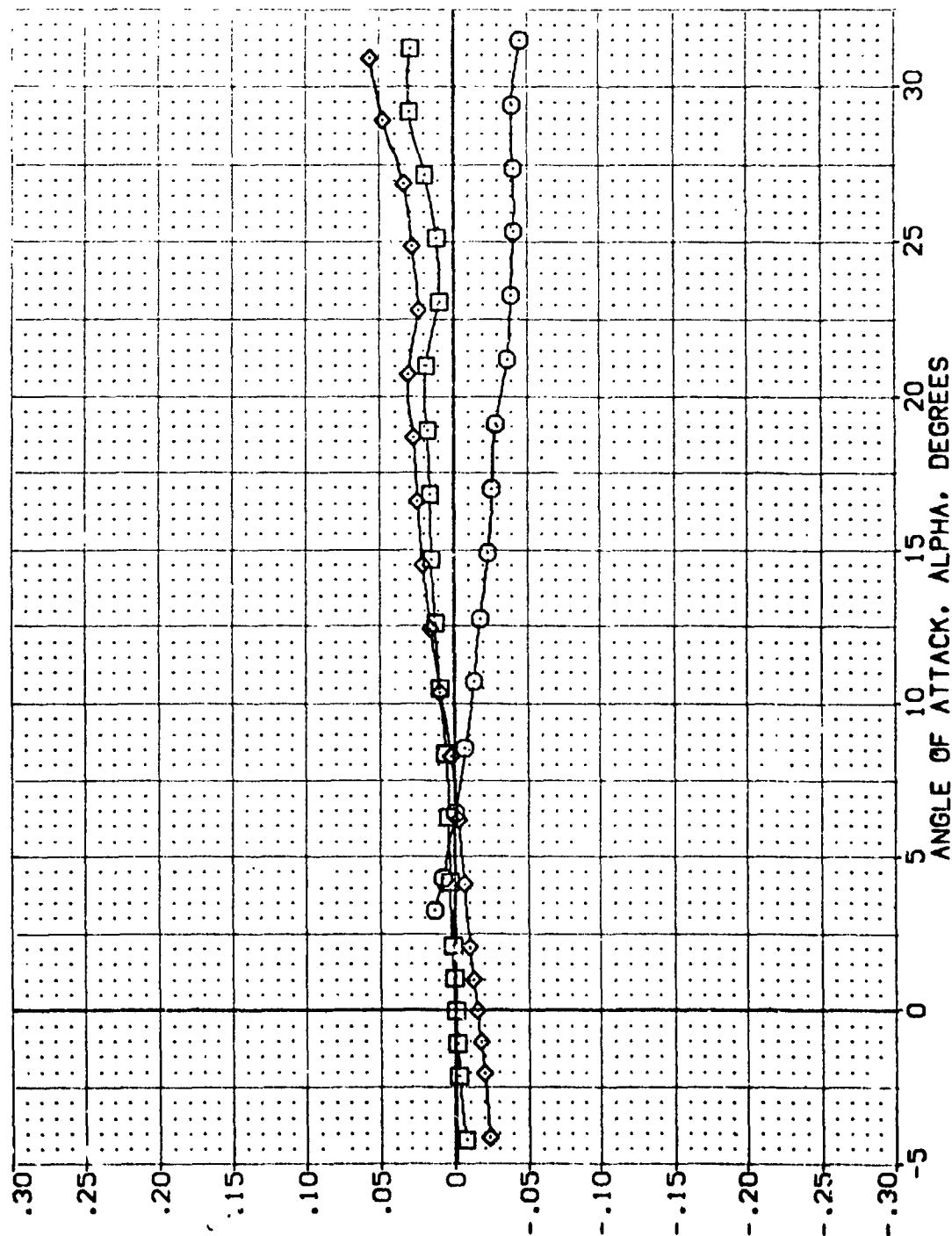


FIG 19 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, BDFLAP = 22.5  
 (A) MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02071) Q 0A62B B26C9G1 SMTF8J43V116E28V8RSX10  
 (B02072) Q 0A62B B26C9G1 SMTF8J43V116E28V8RSX10  
 (B02310) Q 0A62B B26C9G1 SMTF8J43V116E28V8RSX10

ELEVON H/BV SPOBRK BOFLAP REFERENCE INFORMATION  
 .000 .125 .000 22.000 SREF 4.4119 50. FT.  
 .000 .285 .000 22.000 LREF 15.2299 INCHES  
 .000 .000 .000 22.000 BREF 37.9359 INCHES  
 XMRP .0000 XMRP 43.5974 INCHES  
 ZMRP .0000 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

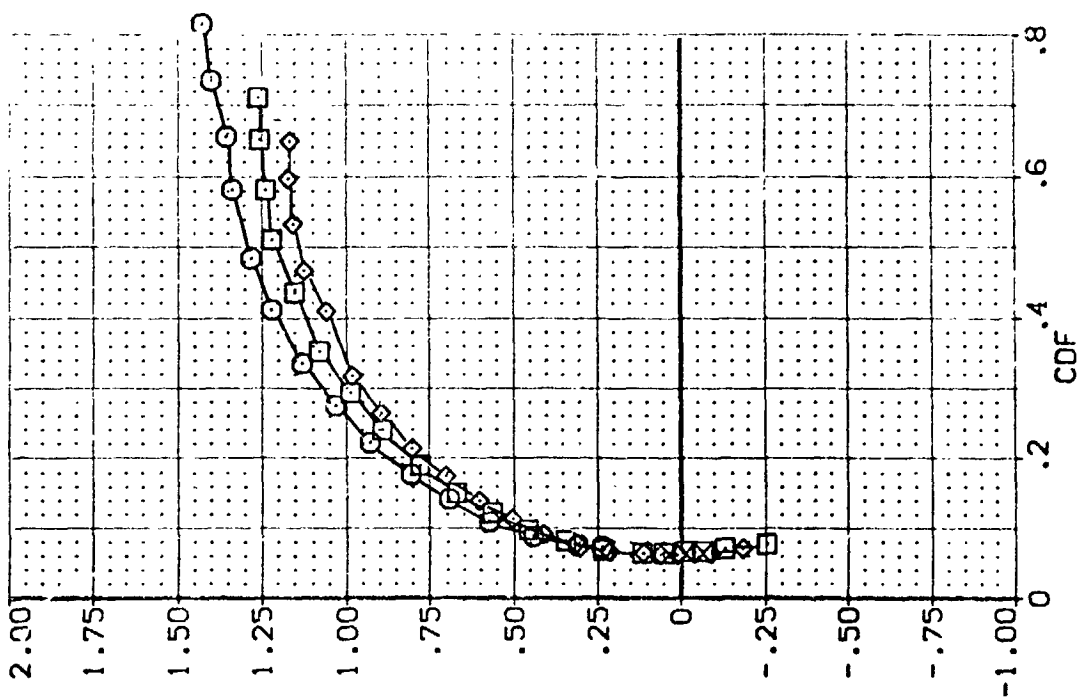
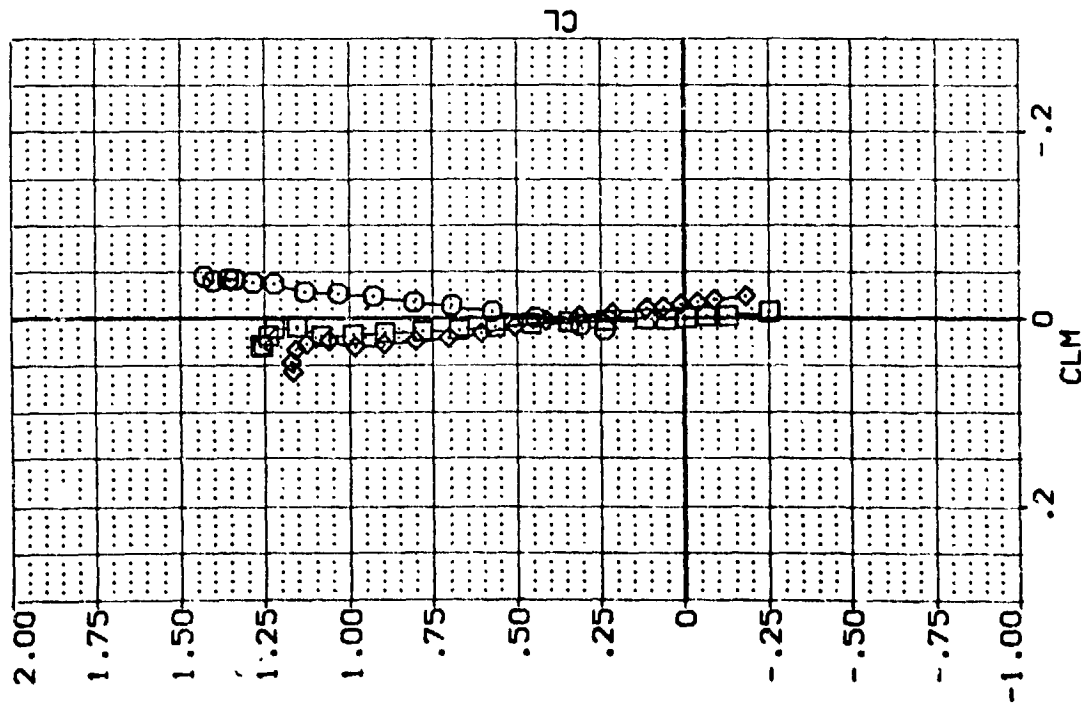


FIG 19 EFFECT OF GROUND HT.. UNDERWING PODDED ENGINES QMS ON, BOFLAP = 22.5  
 (A)MACH = .20





DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(B02071) 0A628 B26C9G1SHTF8J43V116E28VBR5X10  
(B02072) 0A628 B26C9G1SHTF8J43V116E28VBR5X10  
(B02310) 0A628 B26C9G1SHTF8J43V116E28VBR5X10

ELEVON W/BV SPOBRK BOFLAP REFERENCE INFORMATION  
.000 .125 .000 4.4119 SQ.FT.  
.000 .285 .000 19.2299 INCHES  
.000 .000 .000 37.9359 INCHES  
YMRP 43.5974 INCHES  
ZMRP .0000 INCHES  
SCALE 15.1875 INCHES  
.0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

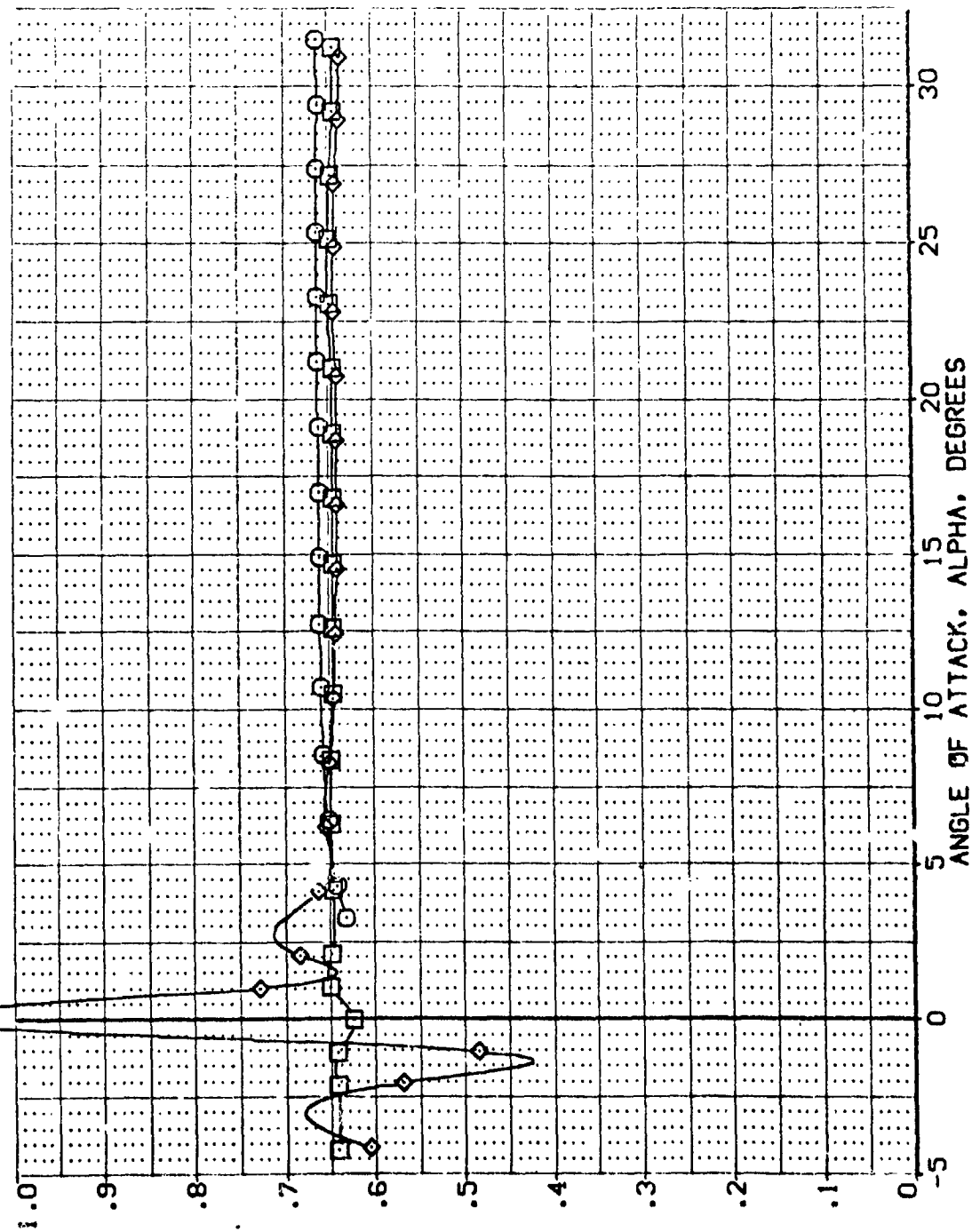


FIG 19 EFFECT OF GROUND HT., UNDERWING PODDED ENGINES OMS ON, BOFLAP = 22.5

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BV	SPDRK	BOFLAP	REFERENCE INFORMATION
(B02071)	0A62B B26C9G1 SH7F8J43W1 I6E28V8R5X10	.000	.125	.000	22.000	4.4119 SO.FT.
(B02072)	0A62B B26C9G1 SH7F8J43W1 I6E28V8R5X10	.000	.265	.000	22.000	19.2299 INCHES
(B02310)	0A62B B26C9G1 SH7F8J43W1 I6E28V8R5X10	.000		.000	22.000	37.9359 INCHES
						43.5974 INCHES
						.0000 INCHES
						15.1875 INCHES
						.0405 SCALE

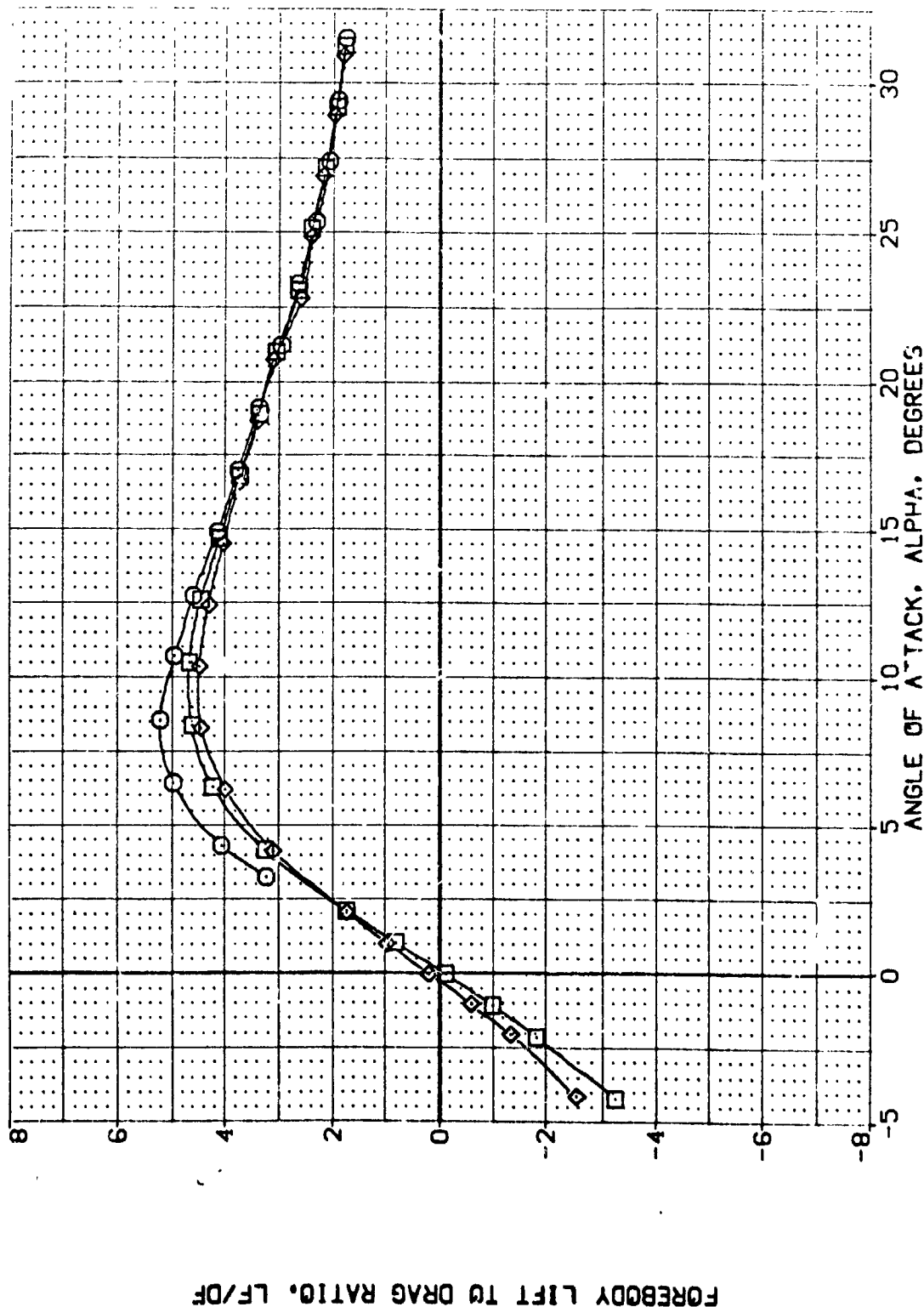


FIG 19 EFFECT OF GROUND HT., UNDERLYING POODED ENGINE'S RMS ON, BOFLAP = 22.5

(A)MACH = .2J

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
(G02001)	0A628 B26C5G1547F8 V116E28VBR5X9	-4.000	15.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02002)	0A628 B26C5G1547F8 V116E28VBR5X9	-2.000	15.000	25.000	-12.000	LREF 19.2299 INCHES
(G02003)	0A628 B26C5G1547F8 V116E28VBR5X9	.000	15.000	25.000	-12.000	BREF 37.9359 INCHES
(G02004)	0A628 B26C5G1547F8 V116E28VBR5X9	2.000	15.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02005)	0A628 B26C5G1547F8 V116E28VBR5X9	4.000	15.000	25.000	-12.000	YMRP 15.0000 INCHES
(G02006)	0A628 B26C5G1547F8 V116E28VBR5X9	6.000	15.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

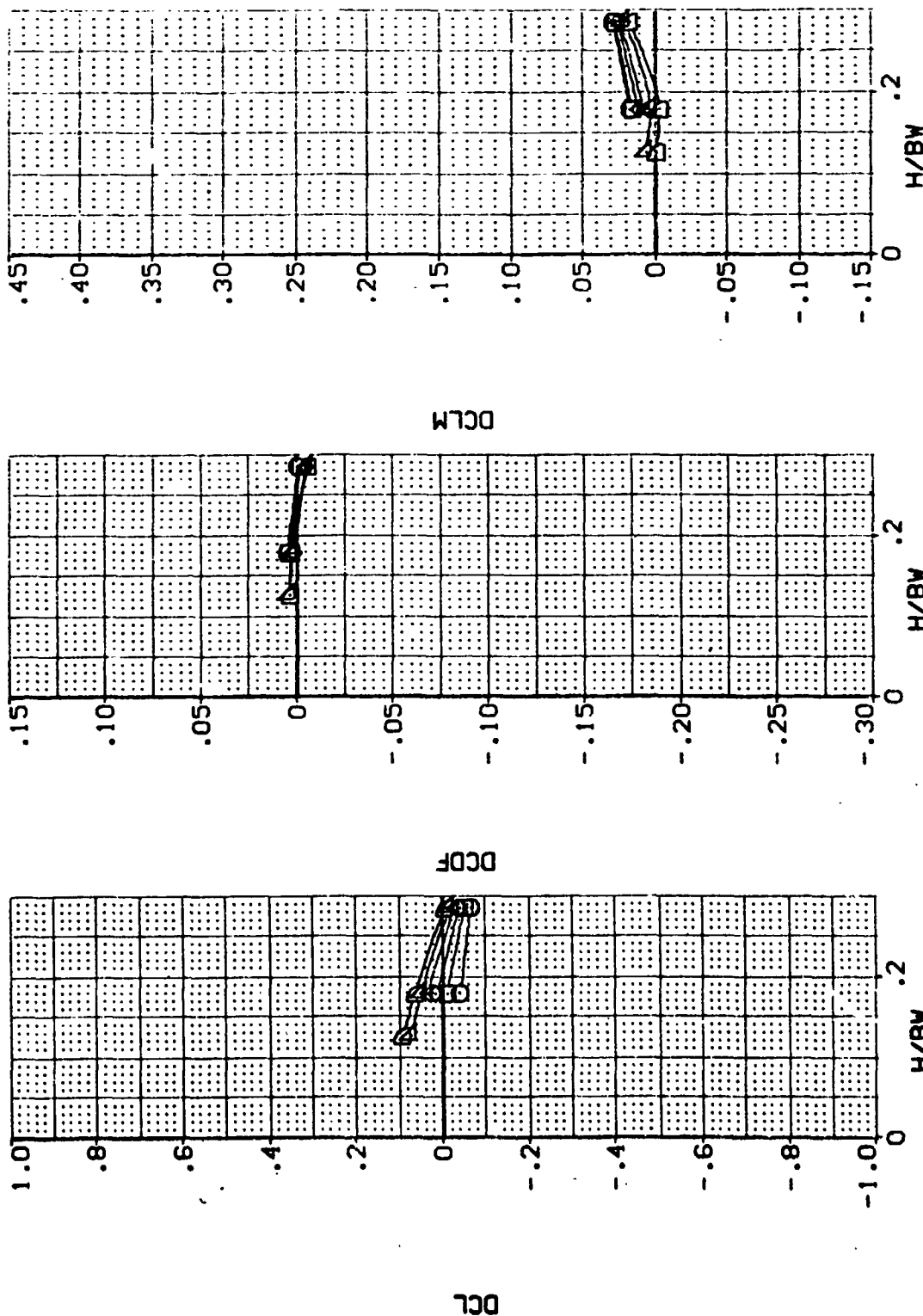


FIG 20 EFFECT OF GROUND HT., ELEVON = 15

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
(G02007)	0A628 B26C9G1547F8 V116E28V8R5X9	8.000	15.000	25.000	-12.000	SREF 4.4119 SO.F.T.
(G02008)	0A628 B26C9G1547F8 V116E28V8R5X9	10.000	15.000	25.000	-12.000	LREF 19.2293 INCHES
(G02009)	0A628 B26C9G1547F8 V116E28V8R5X9	12.000	15.000	25.000	-12.000	BREF 37.9359 INCHES
(G02010)	0A628 B26C9G1547F8 V116E28V8R5X9	14.000	15.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02011)	0A628 B26C9G1547F8 V116E28V8R5X9	16.000	15.000	25.000	-12.000	YMRP .0000 INCHES
(G02012)	0A628 B26C9G1547F8 V116E28V8R5X9	18.000	15.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

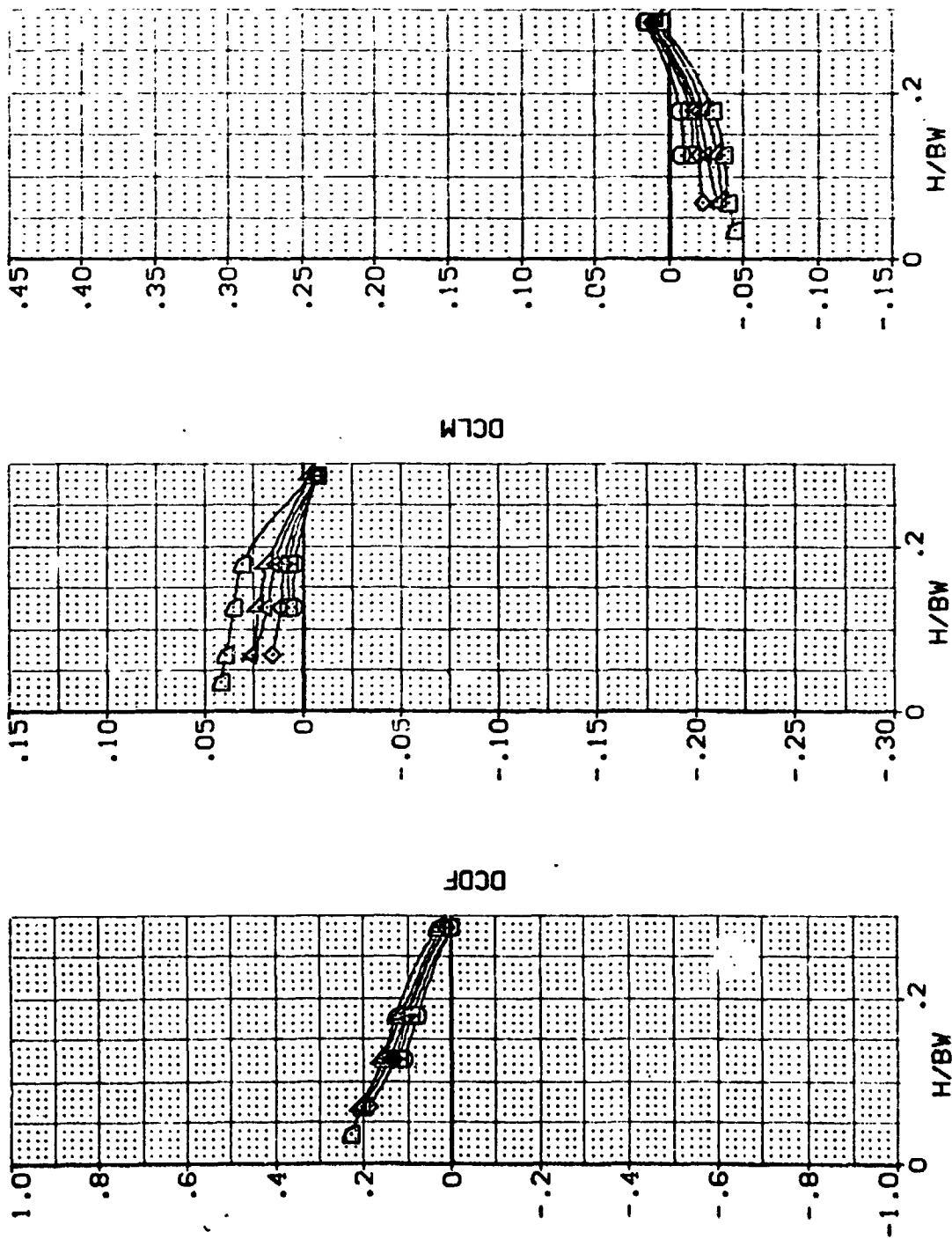


FIG 20 EFFECT OF GROUND HT., ELEVON = 15

(A) MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDRBK	BOFLAP	REFERENCE INFORMATION
(G02013)	0A628 B26C9G1547F8 V116E28V8R5X9	20.000	15.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02014)	0A628 B26C9G1547F8 V116E28V8R5X9	22.000	15.000	25.000	-12.000	LREF 19.2299 INCHES
(G02015)	0A628 B26C9G1547F8 V116E28V8R5X9	24.000	15.000	25.000	-12.000	BREF 37.9359 INCHES
(G02016)	0A628 B26C9G1547F8 V116E28V8R5X9	26.000	15.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02017)	0A628 B26C9G1547F8 V116E28V8R5X9	28.000	15.000	25.000	-12.000	YMRP .0000 INCHES
(G02018)	0A628 B26C9G1547F8 V116E28V8R5X9	30.000	15.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

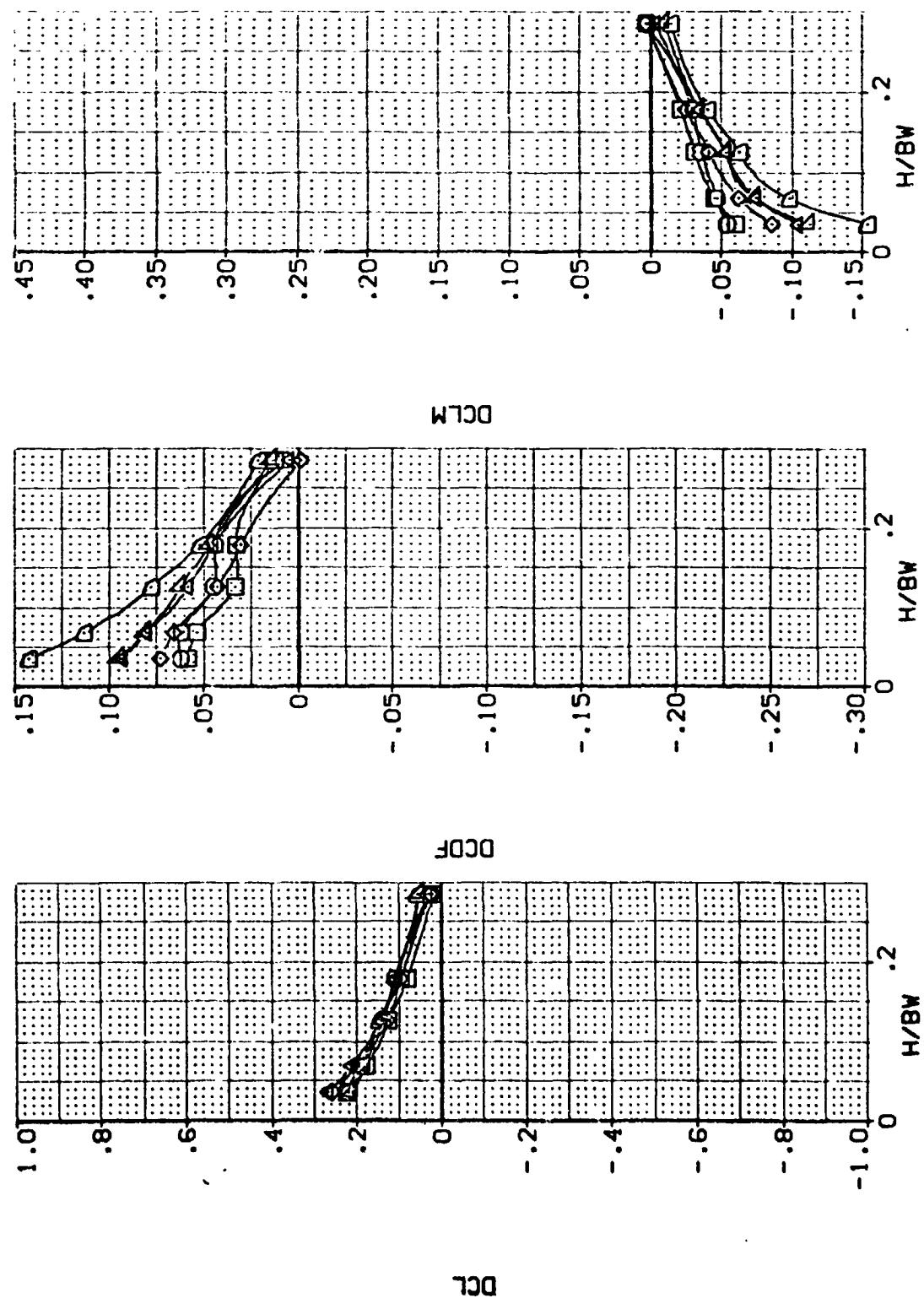


FIG 20 EFFECT OF GROUND HT., ELEVON = 15  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDRBK	BOFLAP	REFERENCE INFORMATION
(G02019)	0A528 B26C9G15M7F8 V116E28V8R5X9	-4.000	10.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02020)	0A528 B26C9G15M7F8 V116E28V8R5X9	-2.000	10.000	25.000	-12.000	LREF 19.2299 INCHES
(G02021)	0A528 B26C9G15M7F8 V116E28V8R5X9	2.000	10.000	25.000	-12.000	GREF 37.9359 INCHES
(G02022)	0A528 B26C9G15M7F8 V116E28V8R5X9	4.000	10.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02023)	0A528 B26C9G15M7F8 V116E28V8R5X9	6.000	10.000	25.000	-12.000	YMRP 15.0000 INCHES
(G02024)	0A528 B26C9G15M7F8 V116E28V8R5X9					ZMRP 15.1875 INCHES
						SCALE .0405

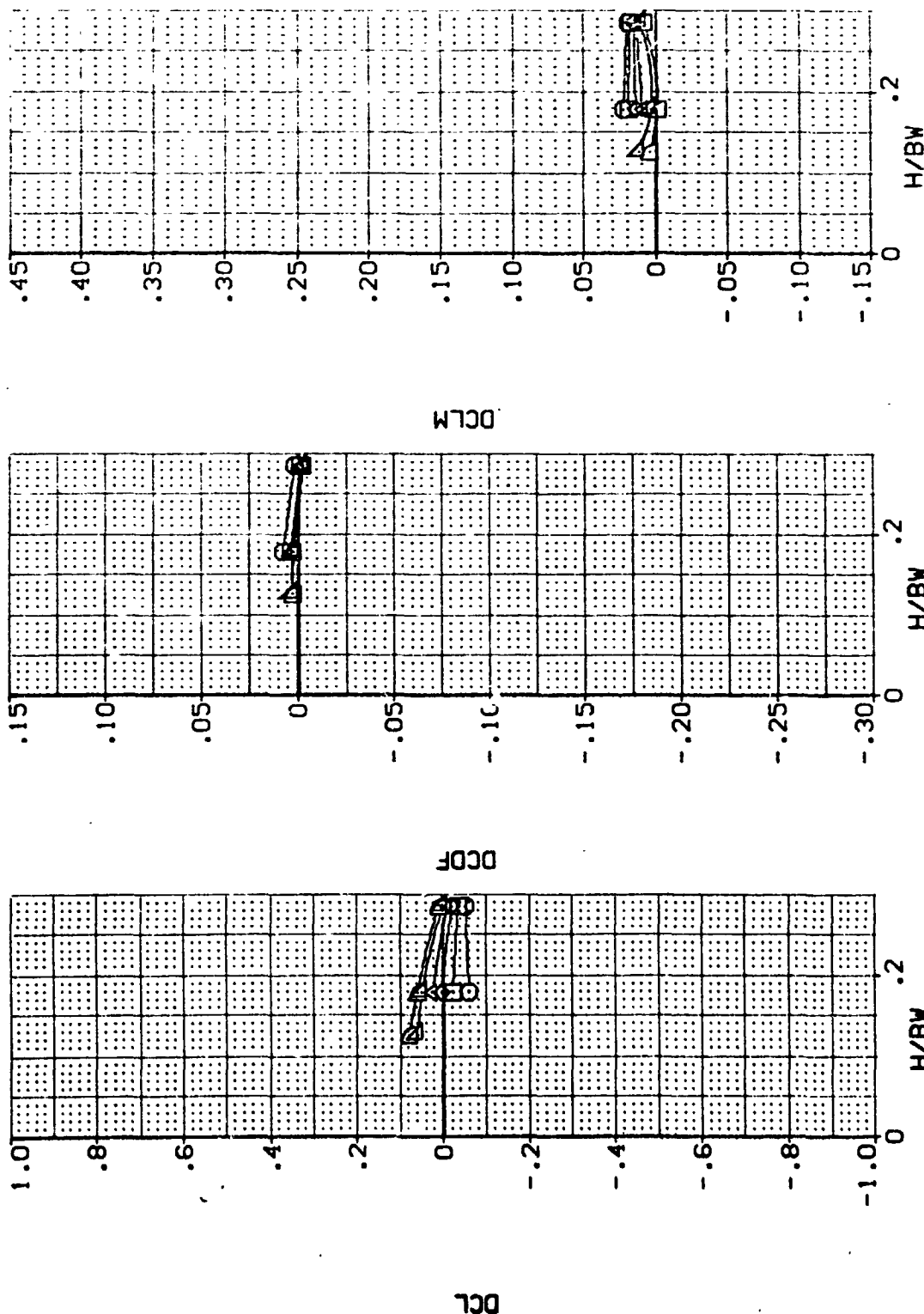


FIG 21 EFFECT OF GROUND HT., ELEVON = 10

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPORCK	BOLAP	REFERENCE INFORMATION
(G02025)	0A528 B26C9G15M7F8	8.000	10.000	25.000	-12.000	SREF 4.4119 50. FT.
(G02026)	0A528 B26C9G15M7F8	10.000	10.000	25.000	-12.000	LREF 19.2299 INCHES
(G02027)	0A528 B26C9G15M7F8	12.000	10.000	25.000	-12.000	BREF 37.9359 INCHES
(G02028)	0A528 B26C9G15M7F8	14.000	10.000	25.000	-12.000	YMRP 43.5974 INCHES
(G02029)	0A528 B26C9G15M7F8	16.000	10.000	25.000	-12.000	ZMRP .0000 INCHES
(G02030)	0A528 B26C9G15M7F8	18.000	10.000	25.000	-12.000	ZSCALE 15.1875 INCHES
						SCALE .0405

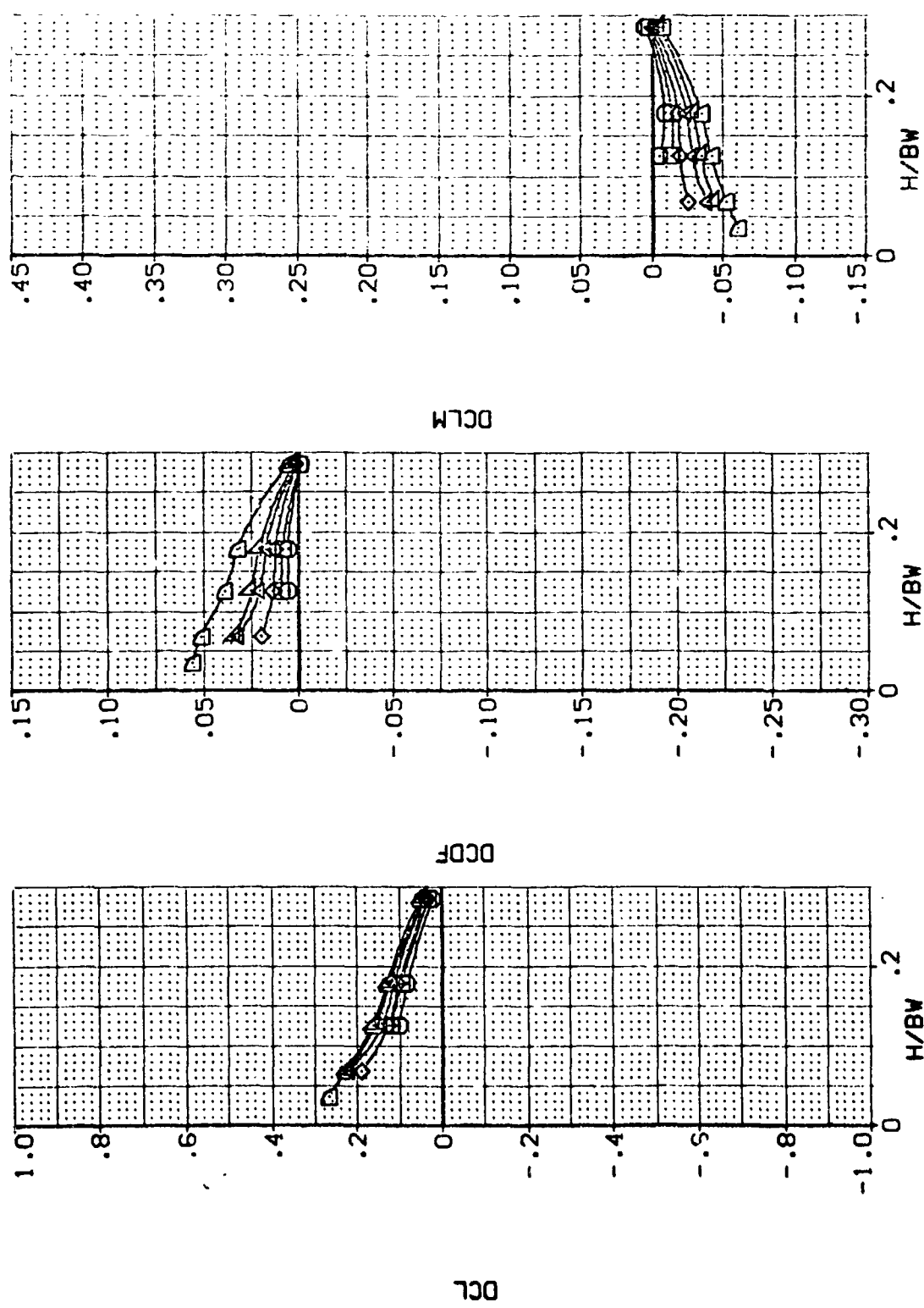


FIG 21 EFFECT OF GROUND HT., ELEVON = 10  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
(G02031)	DA628 B26C9G1547F8 V116E28V8RSX9	20.000	10.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02032)	DA628 B26C9G1547F8 V116E28V8RSX9	22.000	10.000	25.000	-12.000	LREF 19.2299 INCHES
(G02033)	DA628 B26C9G1547F8 V116E28V8RSX9	24.000	10.000	25.000	-12.000	BREF 37.9353 INCHES
(G02034)	DA628 B26C9G1547F8 V116E28V8RSX9	26.000	10.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02035)	DA628 B26C9G1547F8 V116E28V8RSX9	28.000	10.000	25.000	-12.000	YMRP .0000 INCHES
(G02036)	DA628 B26C9G1547F8 V116E28V8RSX9	30.000	10.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

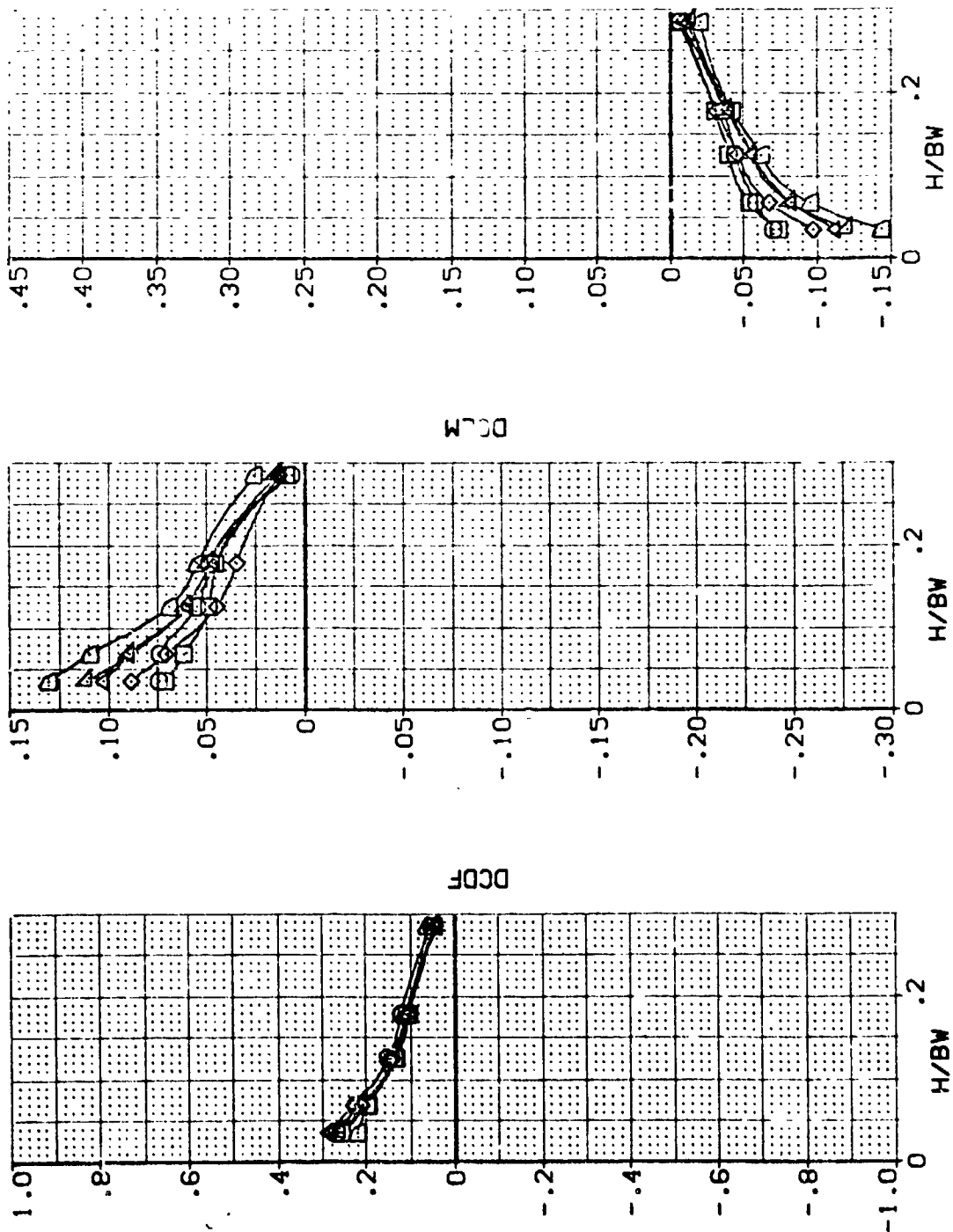


FIG 21 EFFECT OF GROUND HT., ELEVON = 10  
(A) MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDRBK	BOGLAP	REFERENCE INFORMATION
(G0Z037)	0A528 B26C9G1 SM7F8 V115E28V8R5X9	-4.000	5.000	25.000	-12.000	SREF 4.4119 SQ. FT.
(G0Z038)	0A528 B26C9G1 SM7F8 V115E28V8R5X9	-2.000	5.000	25.000	-12.000	LREF 15.2299 INCHES
(G0Z039)	0A528 B26C9G1 SM7F8 V115E28V8R5X9	2.000	5.000	25.000	-12.000	BREF 37.9359 INCHES
(G0Z040)	0A528 B26C9G1 SM7F8 V115E28V8R5X9	4.000	5.000	25.000	-12.000	XMRP 43.5974 INCHES
(G0Z041)	0A528 B26C9G1 SM7F8 V115E28V8R5X9	6.000	5.000	25.000	-12.000	YMRP .0000 INCHES
(G0Z042)	0A528 B26C9G1 SM7F8 V115E28V8R5X9					ZMRP 15.1875 INCHES
						SCALE .0405

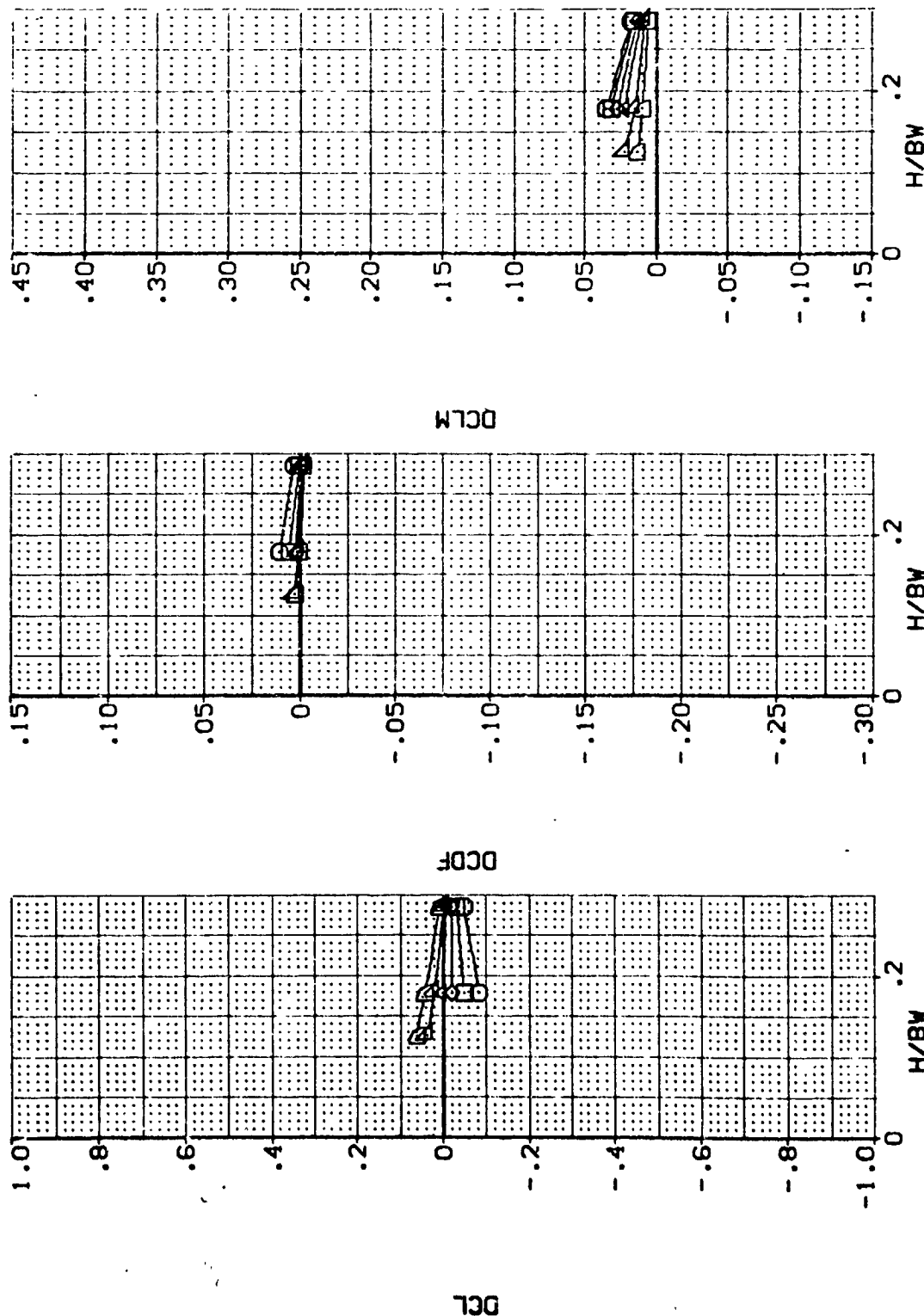


FIG 22 EFFECT OF GROUND HT., ELEVON = 5  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBR:	BOFLAP	REFERENCE INFORMATION
(G02043)	0A528 B26C9G1S47F8	8.000	5.000	25.000	-12.000	SREF 4.4119 SO.FT.
(G02044)	0A528 B26C9G1S47F8	10.000	5.000	25.000	-12.000	LREF 19.2298 INCHES
(G02045)	0A528 B26C9G1S47F8	12.000	5.000	25.000	-12.000	BREF 37.9359 INCHES
(G02046)	0A528 B26C9G1S47F8	14.000	5.000	25.000	-12.000	XTRP 43.3374 INCHES
(G02047)	0A528 B26C9G1S47F8	16.000	5.000	25.000	-12.000	YTRP .0000 INCHES
(G02048)	0A528 B26C9G1S47F8	18.000	5.000	25.000	-12.000	ZTRP 15.1875 INCHES
						SCALE .0405

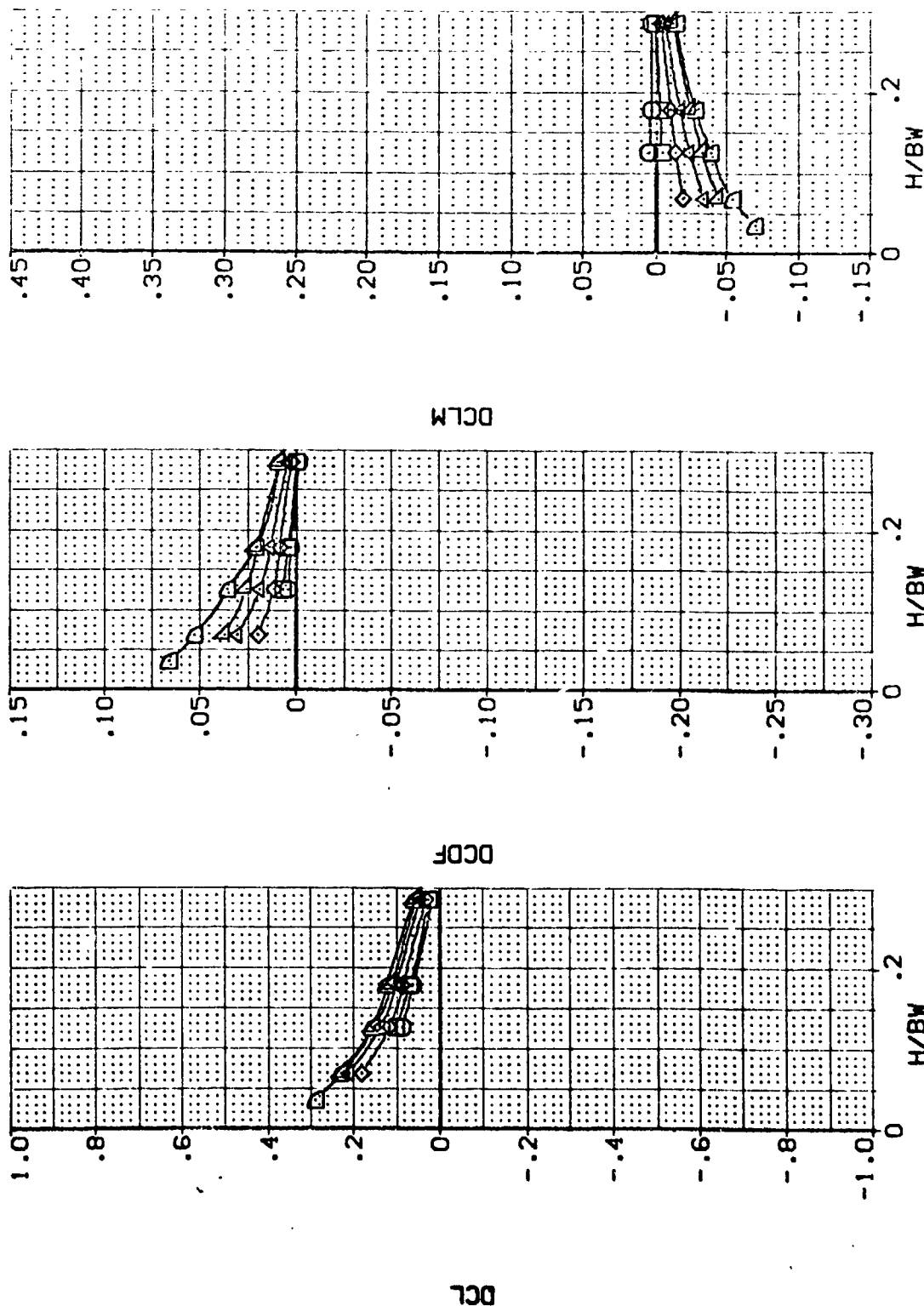


FIG 22 EFFECT OF GROUND HT., ELEVON = 5

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDRBK	BOFLAP	REFERENCE INFORMATION
(002049)	0A628 B26C9G1547F8 V116E28V8RSX9	20.000	5.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(002050)	0A628 B26C9G1547F8 V116E28V8RSX9	22.000	5.000	25.000	-12.000	LREF 19.2299 INCHES
(002051)	0A628 B26C9G1547F8 V116E28V8RSX9	24.000	5.000	25.000	-12.000	BREF 37.9359 INCHES
(002052)	0A628 B26C9G1547F8 V116E28V8RSX9	26.000	5.000	25.000	-12.000	XMRP 43.5974 INCHES
(002053)	0A628 B26C9G1547F8 V116E28V8RSX9	28.000	5.000	25.000	-12.000	YMRP .0000 INCHES
(002054)	0A628 B26C9G1547F8 V116E28V8RSX9	30.000	5.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

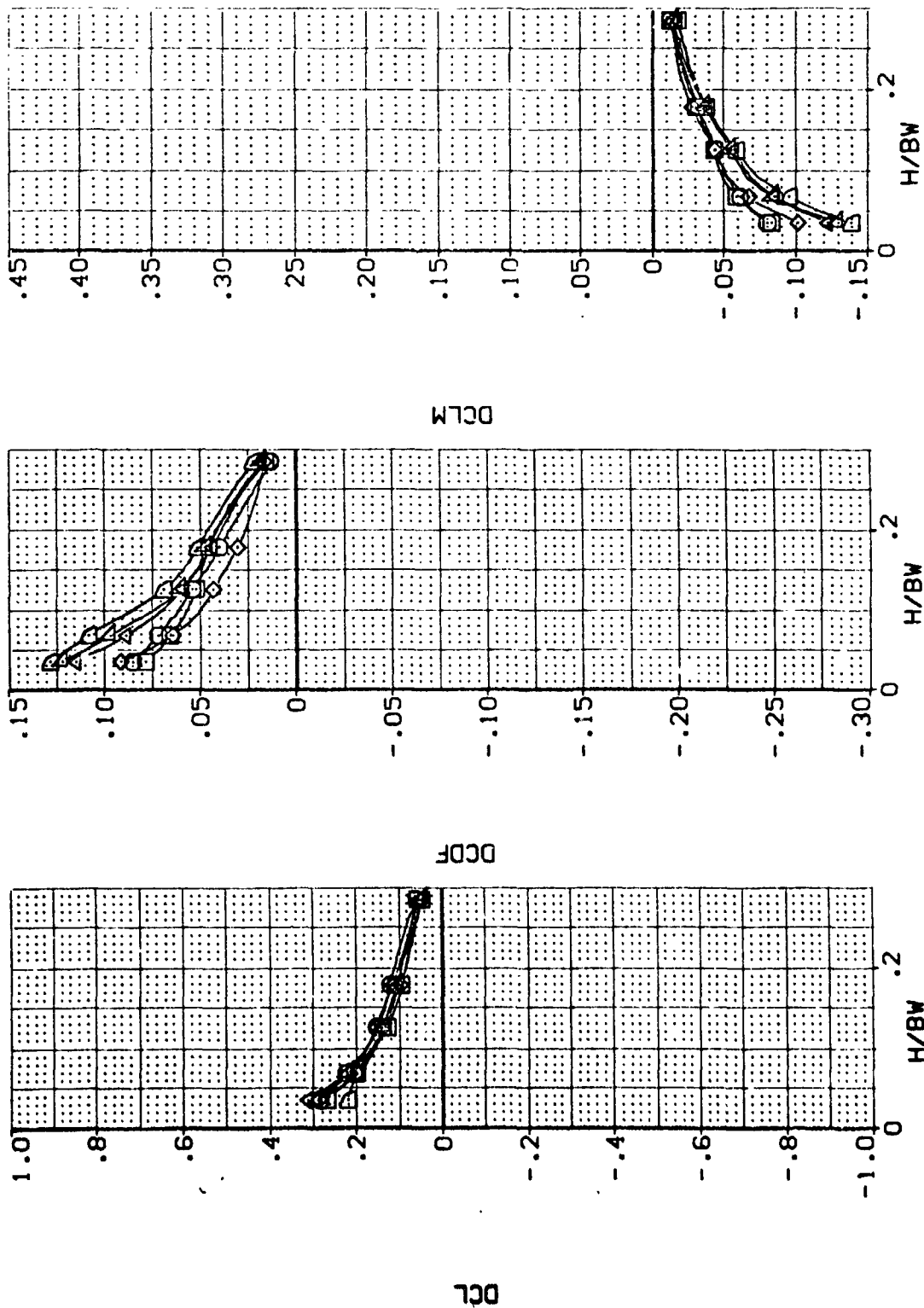


FIG 22 EFFECT OF GROUND HT., ELEVON = 5  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BDFLAP	REFERENCE INFORMATION
(G02055)	0A628 B26C9G15M7F8 V116E28V8K5X9	-4.000	.000	25.000	-12.000	SREF 4.4119 SQ. FT.
(G02056)	0A628 B26C9G15M7F8 V116E28V8K5X9	-2.000	.000	25.000	-12.000	LREF 19.2298 INCHES
(G02057)	0A628 B26C9G15M7F8 V116E28V8K5X9	2.000	.000	25.000	-12.000	BREF 37.9359 INCHES
(G02058)	0A628 B26C9G15M7F8 V116E28V8K5X9	4.000	.000	25.000	-12.000	YMRP .0000 INCHES
(G02059)	0A628 B26C9G15M7F8 V116E28V8K5X9	6.000	.000	25.000	-12.000	ZMRP 15.1875 INCHES
(G02060)	0A628 B26C9G15M7F8 V116E28V8K5X9					SCALE .0405

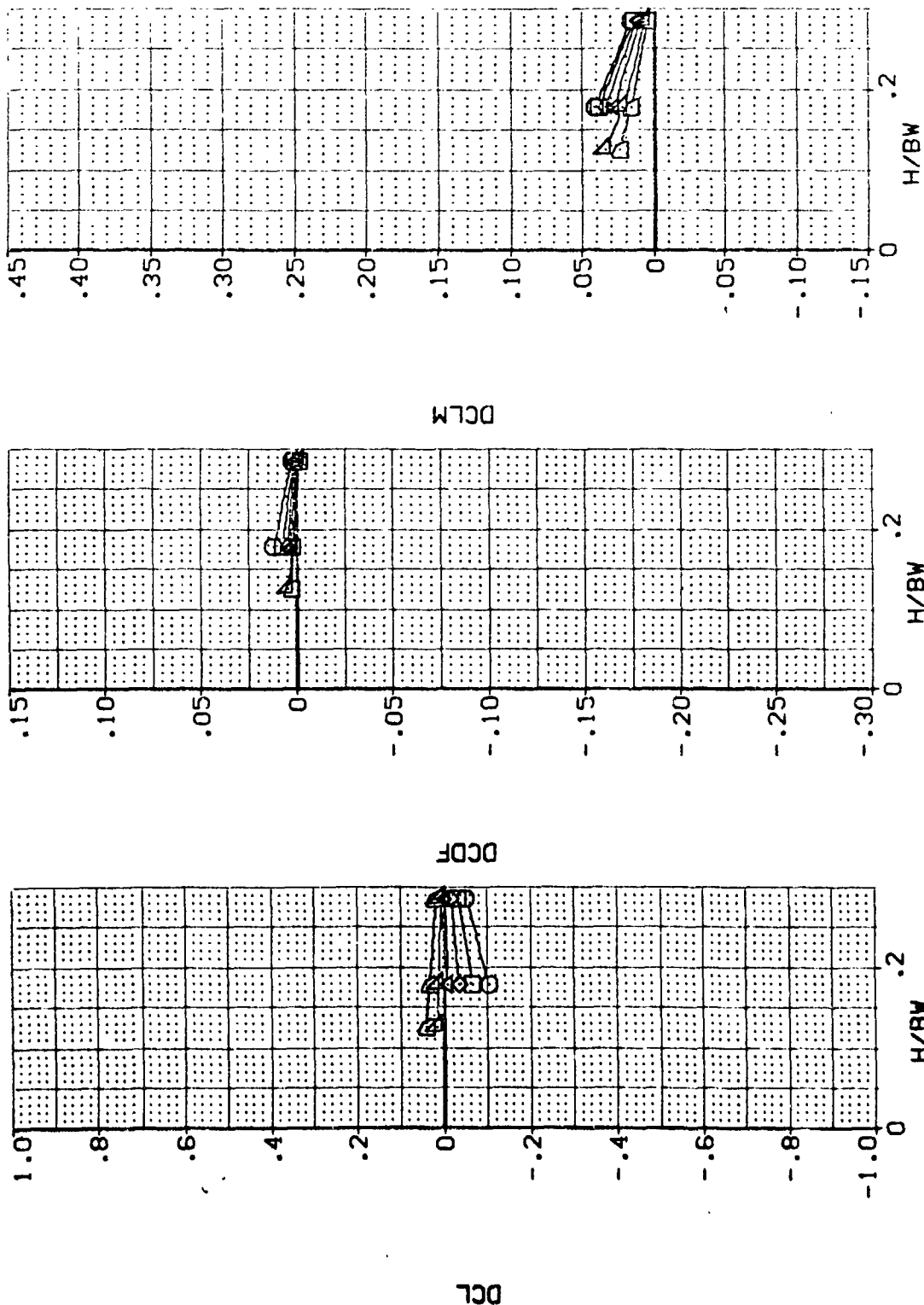


FIG 23 EFFECT OF GROUND HT., ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDRBK	BDFLAP	REFERENCE INFORMATION
(G02061)	0A628 B26C9G1S47F8 V116E28V8R5X9	8.000	.000	25.000	-12.000	SREF 4.4119 SO.FT.
(G02062)	0A628 B26C9G1S47F8 V116E28V8R5X9	10.000	.000	25.000	-12.000	LREF 19.2298 INCHES
(G02063)	0A628 B26C9G1S47F8 V116E28V8R5X9	12.000	.000	25.000	-12.000	BREF 37.9339 INCHES
(G02064)	0A628 B26C9G1S47F8 V116E28V8R5X9	14.000	.000	25.000	-12.000	XMRP 4.15974 INCHES
(G02065)	0A628 B26C9G1S47F8 V116E28V8R5X9	16.000	.000	25.000	-12.000	YMRP .0000 INCHES
(G02066)	0A628 B26C9G1S47F8 V116E28V8R5X9	18.000	.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

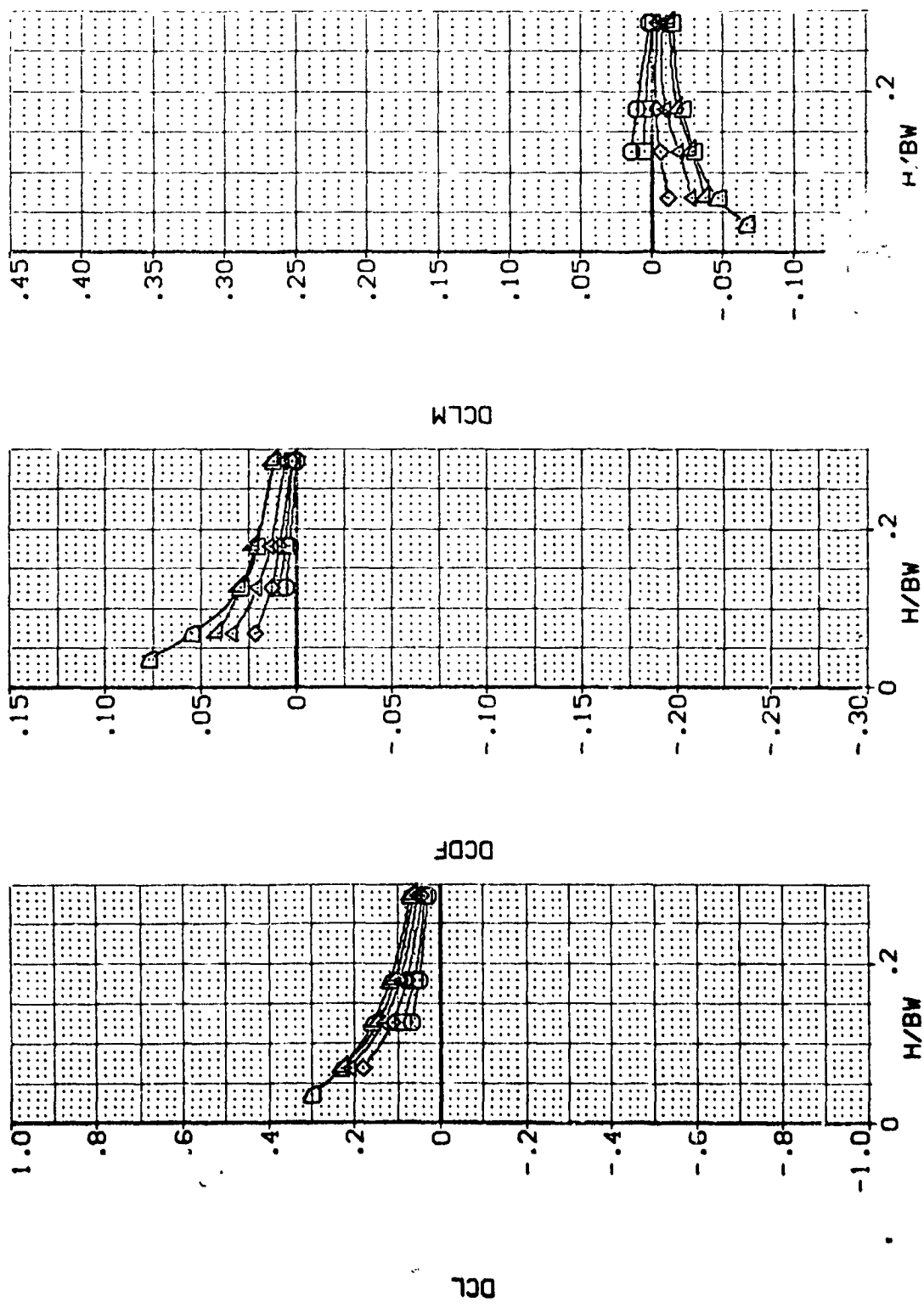


FIG 23 EFFECT OF GROUND HT., ELEVON = 0

(A) MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDRK	BOFLAP	REFERENCE INFORMATION
(G02067)	0A528 B26C961 SM7F8	20.000	.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02068)	0A528 B26C961 SM7F8	22.000	.000	25.000	-12.000	LREF 19.2299 INCHES
(G02069)	0A528 B26C961 SM7F8	24.000	.000	25.000	-12.000	BREF 37.9359 INCHES
(G02070)	0A528 B26C961 SM7F8	26.000	.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02071)	0A528 B26C961 SM7F8	28.000	.000	25.000	-12.000	YMRP .0000 INCHES
(G02072)	0A528 B26C961 SM7F8	30.000	.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

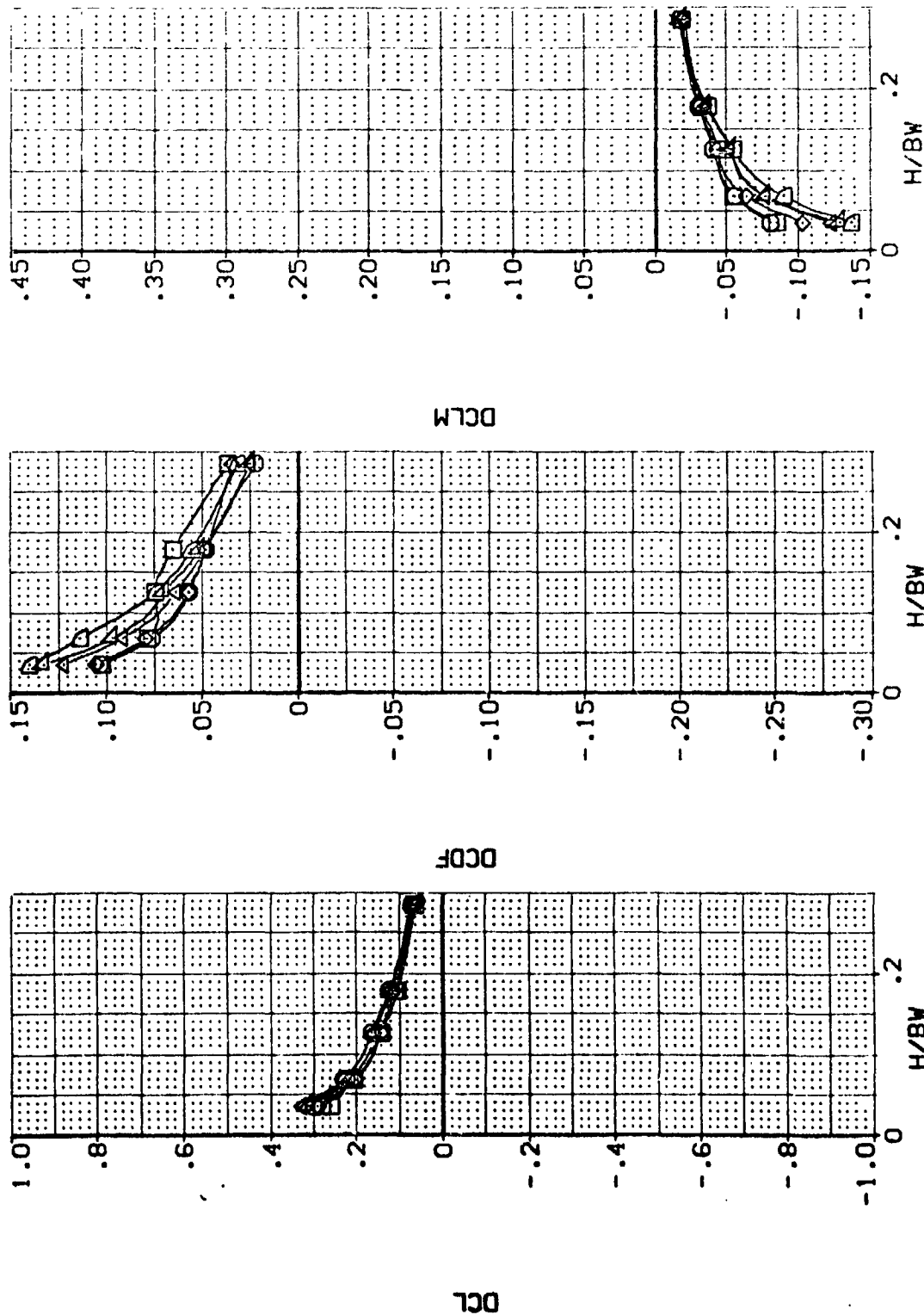


FIG 23 EFFECT OF GROUND HT., ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(G02073)	QAS2P	B26C9G1SMTF8	V116E28V8R5X9
(G02074)	QAS2L	B26C9G1SMTF8	V116E28V8R5X9
(G02075)	QAS2B	B26C9G1SMTF8	V116E28V8R5X9
(G02076)	QAS2B	B26C9G1SMTF8	V116E28V8R5X9
(G02077)	QAS2B	B26C9G1SMTF8	V116E28V8R5X9
(G02078)	QAS2B	B26C9G1SMTF8	V116E28V8R5X9

ALPHA ELEVON SPOBRK BDFLAP REFERENCE INFORMATION

-4.000	-5.000	25.000	-12.000	SREF	4.4119	50. FT.
-2.000	-5.000	5.000	-12.000	LREF	19.2299	INCHES
.000	-5.000	25.000	-12.000	BREF	37.9359	INCHES
2.000	-5.000	25.000	-12.000	XREF	43.5974	INCHES
4.000	-5.000	25.000	-12.000	YREF	15.0000	INCHES
6.000	-5.000	25.000	-12.000	ZREF	15.1875	INCHES
				SCALE	.0405	SCALE

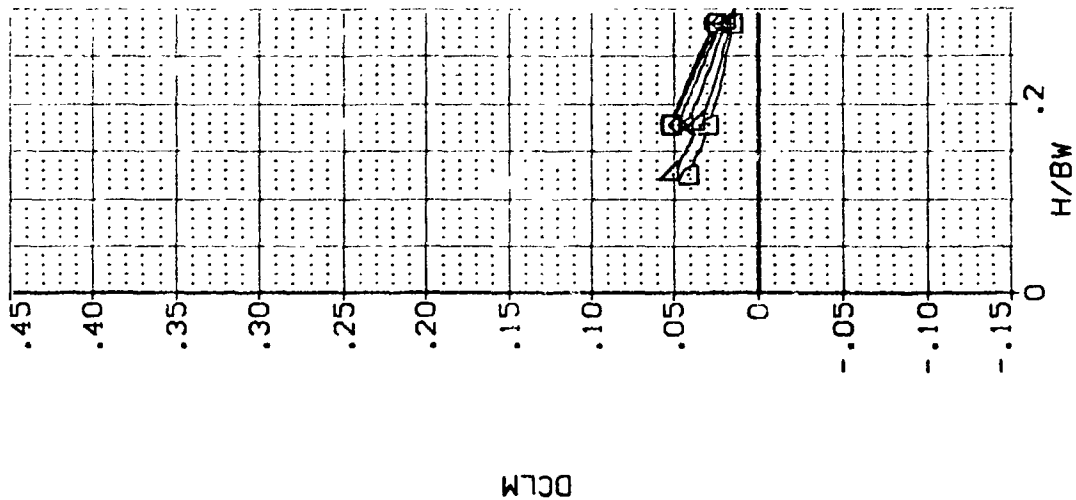
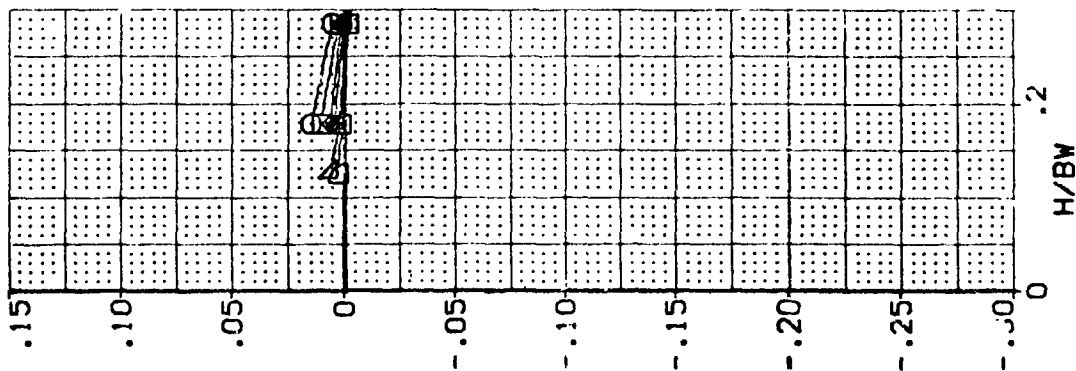
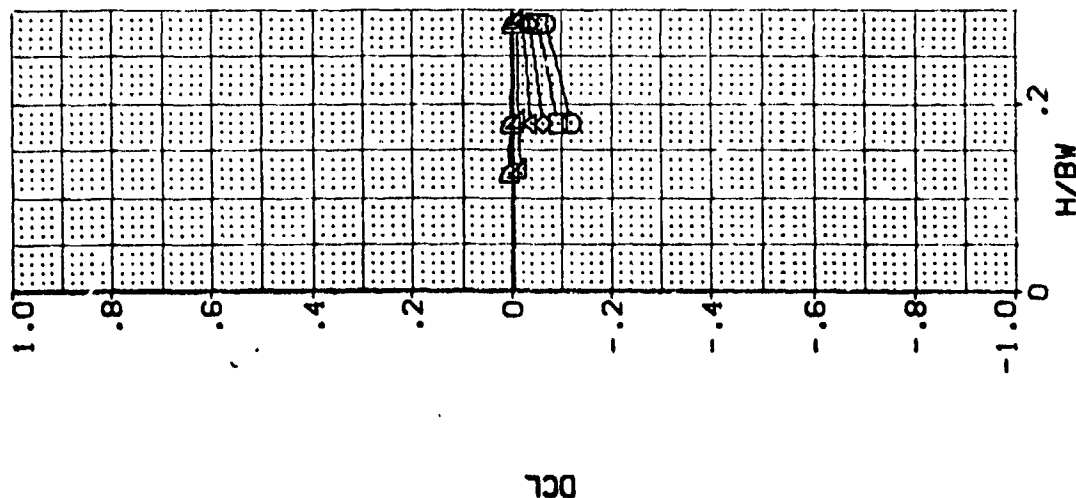


FIG 24 EFFECT OF GROUND HT., ELEVON = -5

(A) MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDRK	BOFLAP	REFERENCE INFORMATION
(G02079)	0A628 B26C9G15M7F8	8.000	-5.000	25.000	-12.000	SREF 4.4119 SO.FT.
(G02080)	0A628 B26C9G15M7F8	10.000	-5.000	25.000	-12.000	LREF 19.2299 INCHES
(G02081)	0A628 B26C9G15M7F8	12.000	-5.000	25.000	-12.000	BREF 37.9359 INCHES
(G02082)	0A628 B26C9G15M7F8	14.000	-5.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02083)	0A628 B26C9G15M7F8	16.000	-5.000	25.000	-12.000	YMRP .0000 INCHES
(G02084)	0A628 B26C9G15M7F8	18.000	-5.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

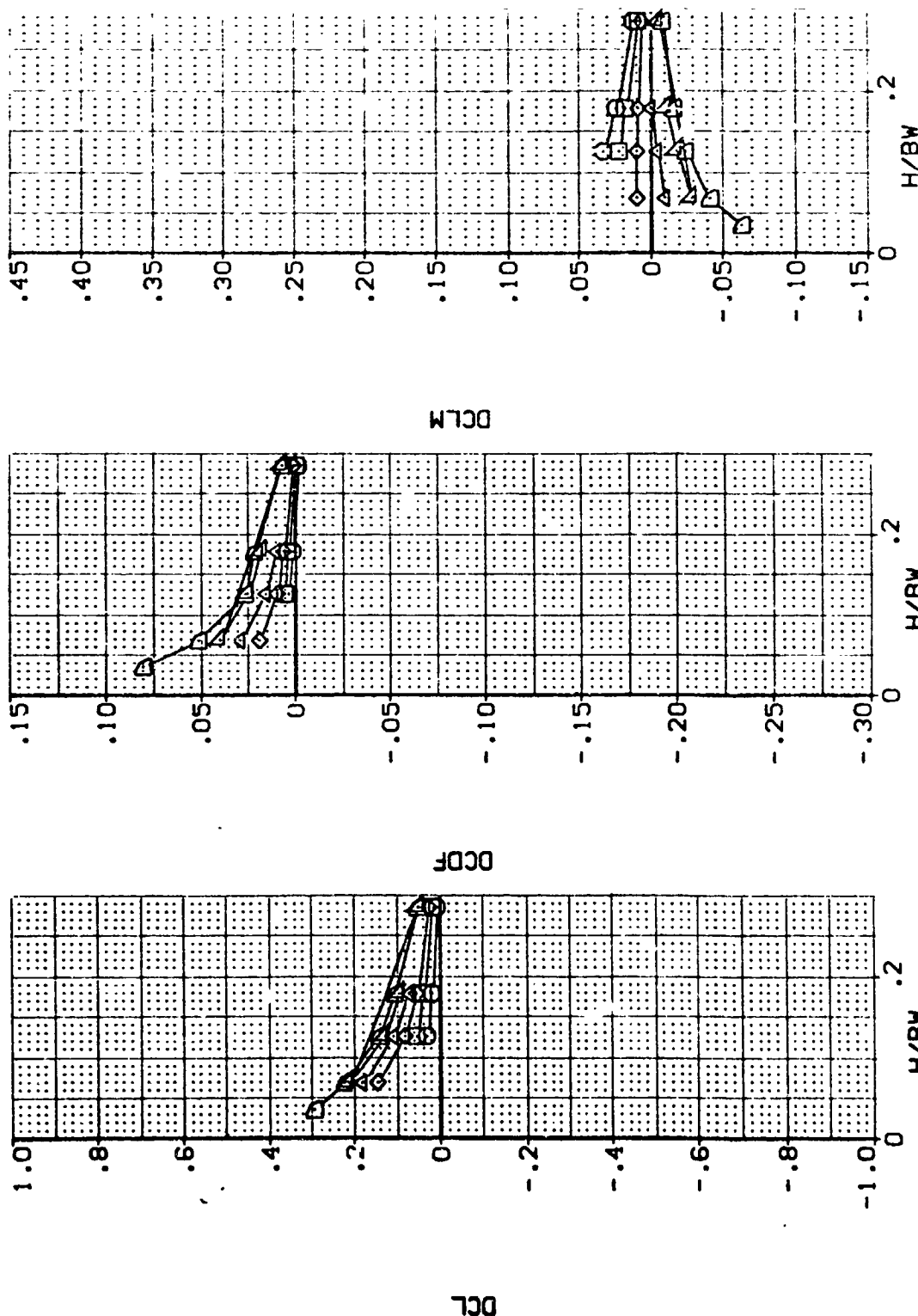


FIG 24 EFFECT OF GROUND HT., ELEVON = -5

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDBRK	BDLAP	REFERENCE INFORMATION
(G02085)	0A628 B26C9G1S47F8 V11B28V87S49	20.000	-5.000	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(G02086)	0A628 B26C9G1S47F8 V11B28V87S49	22.000	-5.000	25.000	-12.000	LREF 19.2799 INCHES
(G02087)	0A628 B26C9G1S47F8 V11B28V87S49	24.000	-5.000	25.000	-12.000	BREF 37.9359 INCHES
(G02088)	0A628 B26C9G1S47F8 V11B28V87S49	26.000	-5.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02089)	0A628 B26C9G1S47F8 V11B28V87S49	28.000	-5.000	25.000	-12.000	YMRP 10000 INCHES
(G02090)	0A628 B26C9G1S47F8 V11B28V87S49	30.000	-5.000	25.000	-12.000	ZMRP 15.1873 INCHES
						SCALE .0405

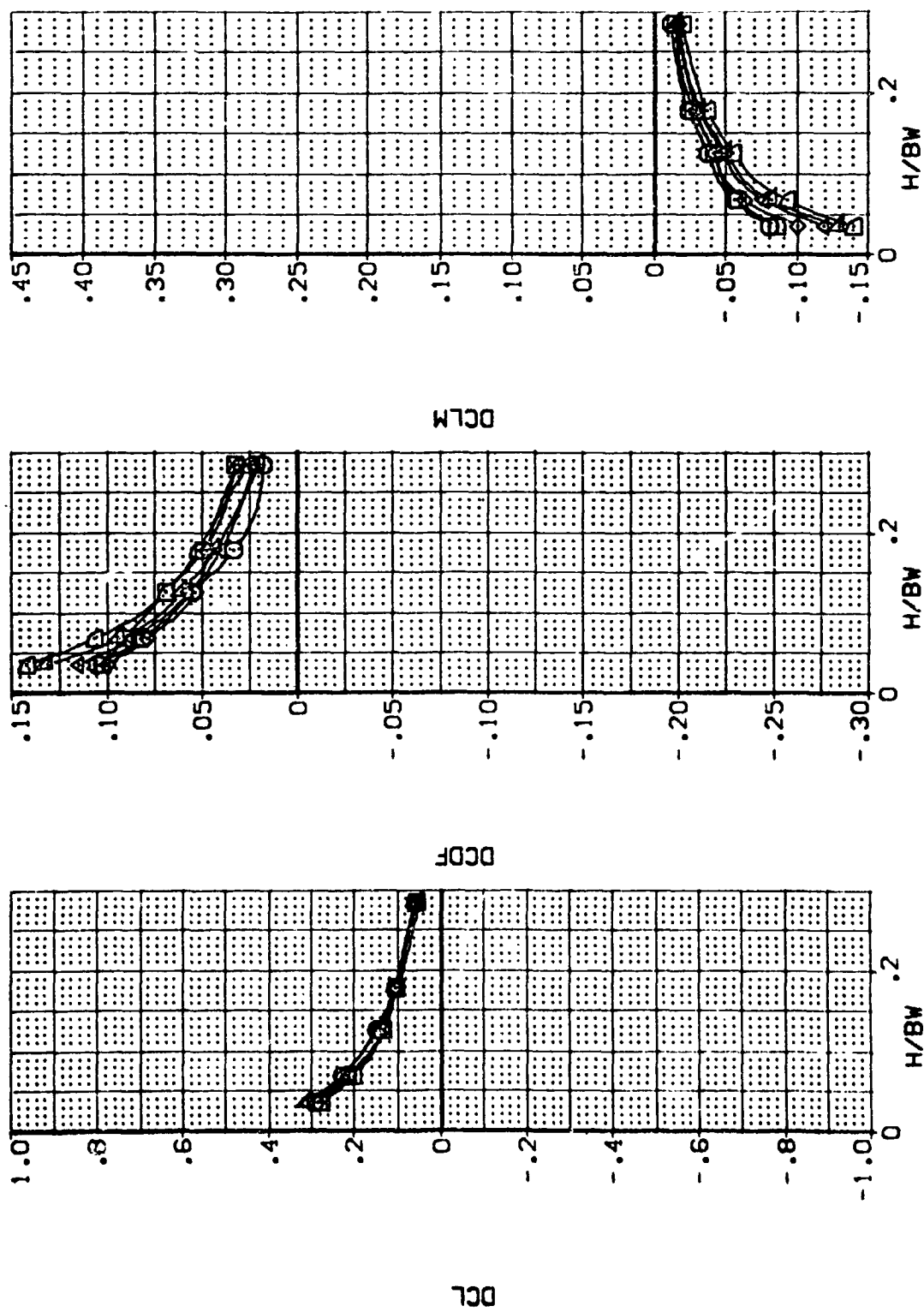


FIG 24 EFFECT OF GROUND HT.. ELEVON = -5

(A)MAC = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(G02091)	0A528 B26C9G154778 V116E28V8RSX9
(G02092)	0A528 B26C9G154778 V116E28V8RSX9
(G02093)	0A528 B26C9G154778 V116E28V8RSX9
(G02094)	0A528 B26C9G154778 V116E28V8RSX9
(G02095)	0A528 B26C9G154778 V116E28V8RSX9
(G02096)	0A528 B26C9G154778 V116E28V8RSX9

ALPHA	ELEVON	SPOBRK	BDFLAP	REFERENCE INFORMATION
-4.000	-10.000	25.000	-12.000	SREF 4.4119 SO.FT.
-2.000	-10.000	25.000	-12.000	LREF 19.2299 INCHES
.000	-10.000	25.000	-12.000	BREF 37.9359 INCHES
2.000	-10.000	25.000	-12.000	XMRP 43.5974 INCHES
4.000	-10.000	25.000	-12.000	YMRP 00.000 INCHES
6.000	-10.000	25.000	-12.000	ZMRP 15.1875 INCHES
				SCALE .0405

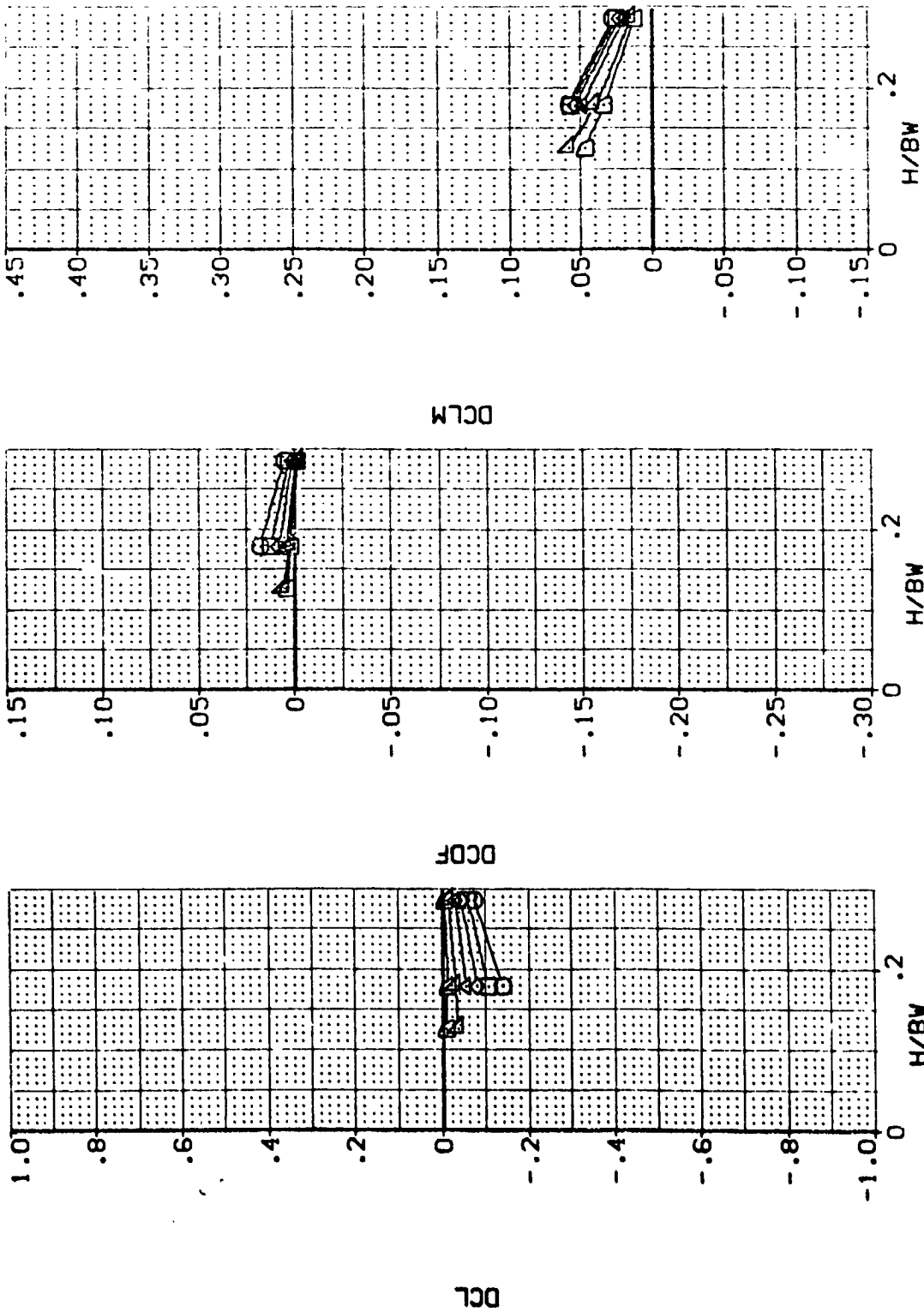


FIG 25 EFFECT OF GROUND HT., ELEVON = -10  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
(G02097)	0A528 B26C9G15M7F8 V116E28VBR5X9	8.000	-10.000	25.000	-12.000	SREF 4.4119 SO.FT.
(G02098)	0A528 B26C9G15M7F8 V116E28VBR5X9	10.000	-10.000	25.000	-12.000	LREF 19.2299 INCHES
(G02099)	0A528 B26C9G15M7F8 V116E28VBR5X9	12.000	-10.000	25.000	-12.000	BREF 37.9359 INCHES
(G02100)	0A528 B26C9G15M7F8 V116E28VBR5X9	14.000	-10.000	25.000	-12.000	YMRP 43.5974 INCHES
(G02101)	0A528 B26C9G15M7F8 V116E28VBR5X9	16.000	-10.000	25.000	-12.000	YMRP 15.0000 INCHES
(G02102)	0A528 B26C9G15M7F8 V116E28VBR5X9	18.000	-10.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

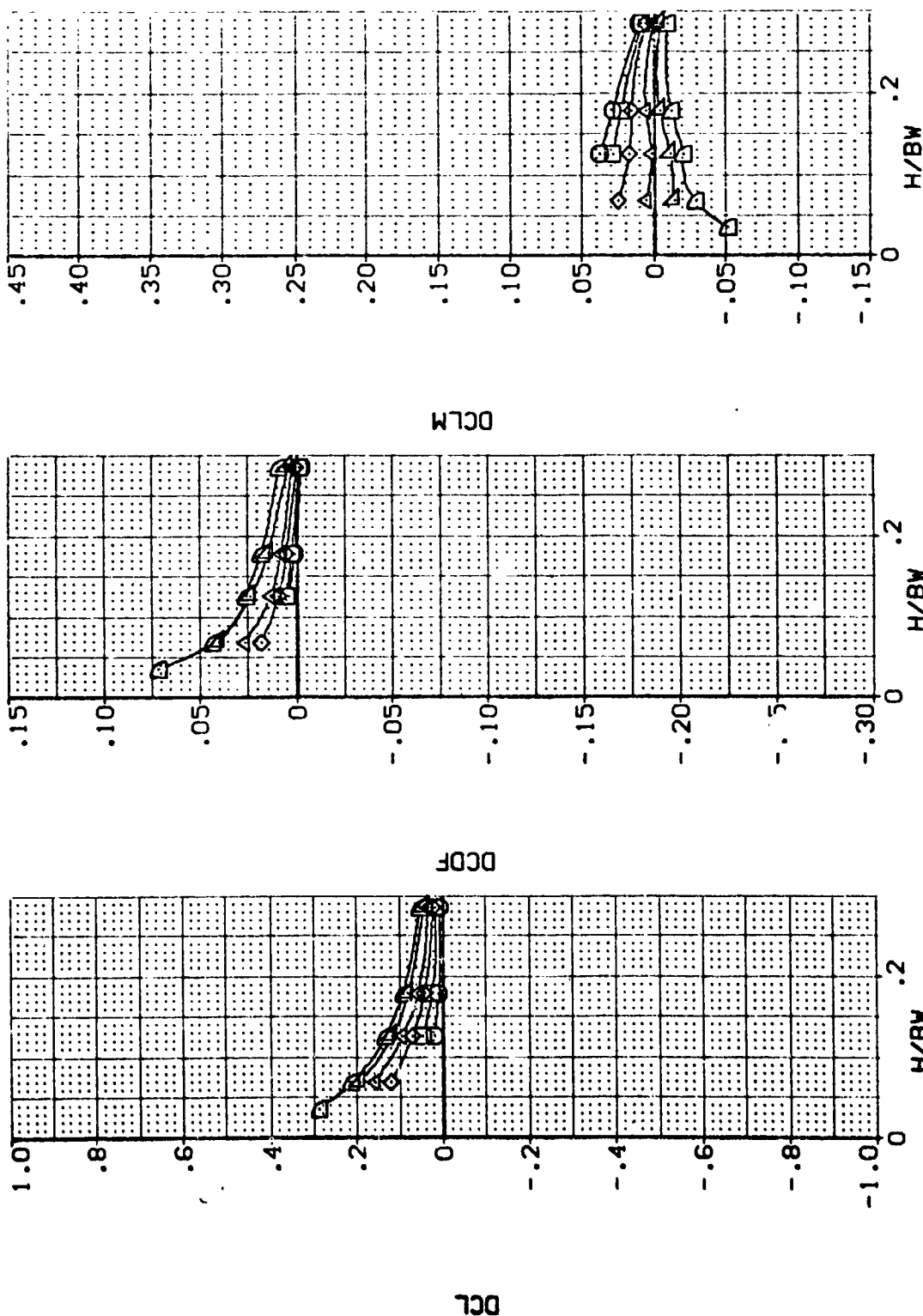


FIG 25 EFFECT OF GROUND HT., ELEVON = -10  
(A) MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(G02103)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02104)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02105)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02106)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02107)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02108)	0A628	B26C9G1547F8	V116E28V8R5X9

ALPHA ELEVON SPOBRK BOFLAP REFERENCE INFORMATION

20.000	-10.000	25.000	-12.000	SREF	4.4119	SO.FT.
22.000	-10.000	25.000	-12.000	LREF	19.2299	INCHES
24.000	-10.000	25.000	-12.000	BREF	37.9359	INCHES
26.000	-10.000	25.000	-12.000	XMRP	43.5974	INCHES
28.000	-10.000	25.000	-12.000	YMRP	15.0000	INCHES
30.000	-10.000	25.000	-12.000	ZMRP	15.1875	INCHES
				SCALE	.0405	SCALE

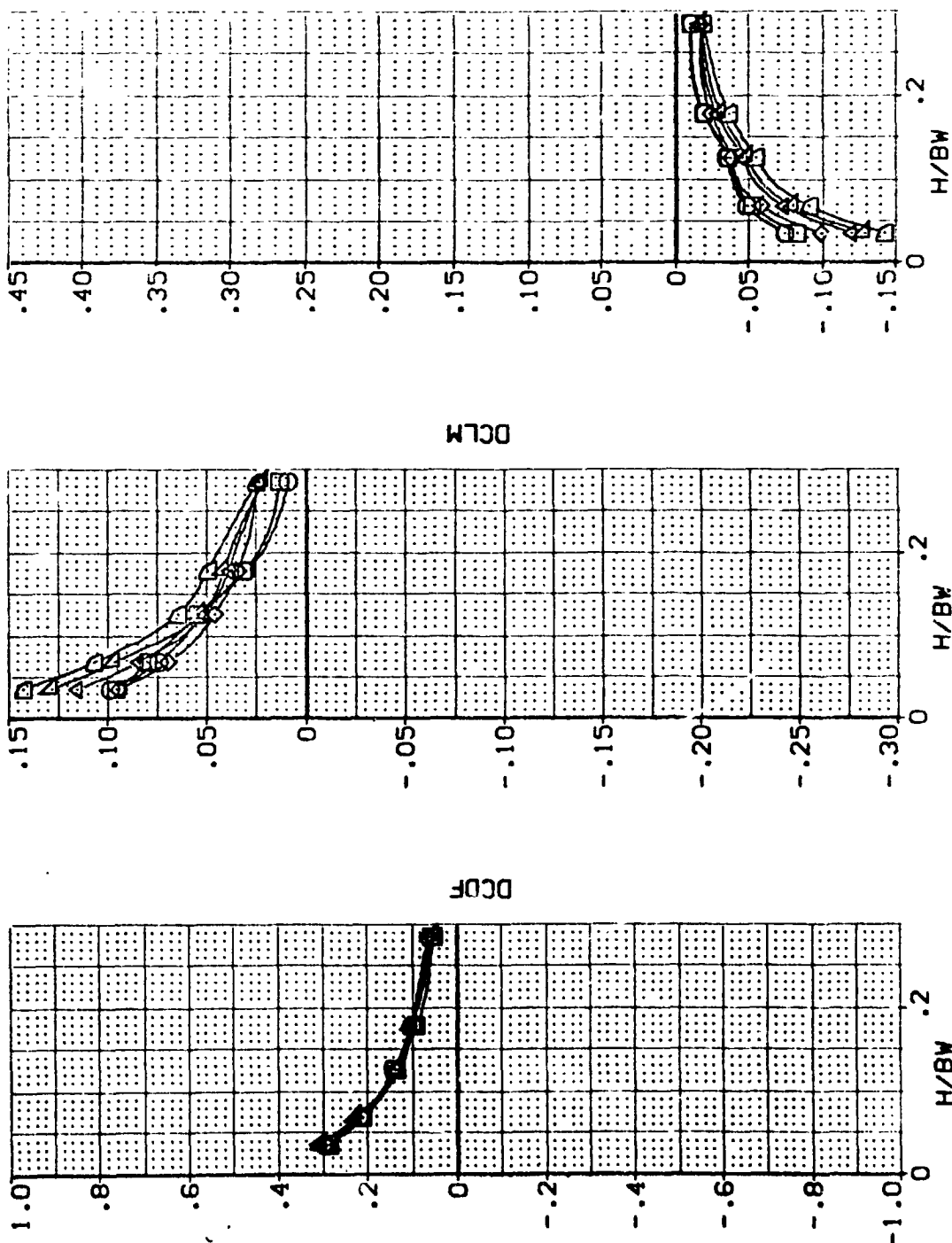


FIG 25 EFFECT OF GROUND HT., ELEVON = -10

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BDFLAP	REFERENCE INFORMATION
(G02109)	0A628 B26C9G15M7F8 V116E28V8R5X9	-4.000	-15.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02110)	0A628 B26C9G15M7F8 V116E28V8R5X9	-2.000	-15.000	25.000	-12.000	LREF 19.2298 INCHES
(G02111)	0A628 B26C9G15M7F8 V116E28V8R5X9	.000	-15.000	25.000	-12.000	BREF 37.9359 INCHES
(G02112)	0A628 B26C9G15M7F8 V116E28V8R5X9	2.000	-15.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02113)	0A628 B26C9G15M7F8 V116E28V8R5X9	4.000	-15.000	25.000	-12.000	YMRP .0000 INCHES
(G02114)	0A628 B26C9G15M7F8 V116E28V8R5X9	6.000	-15.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

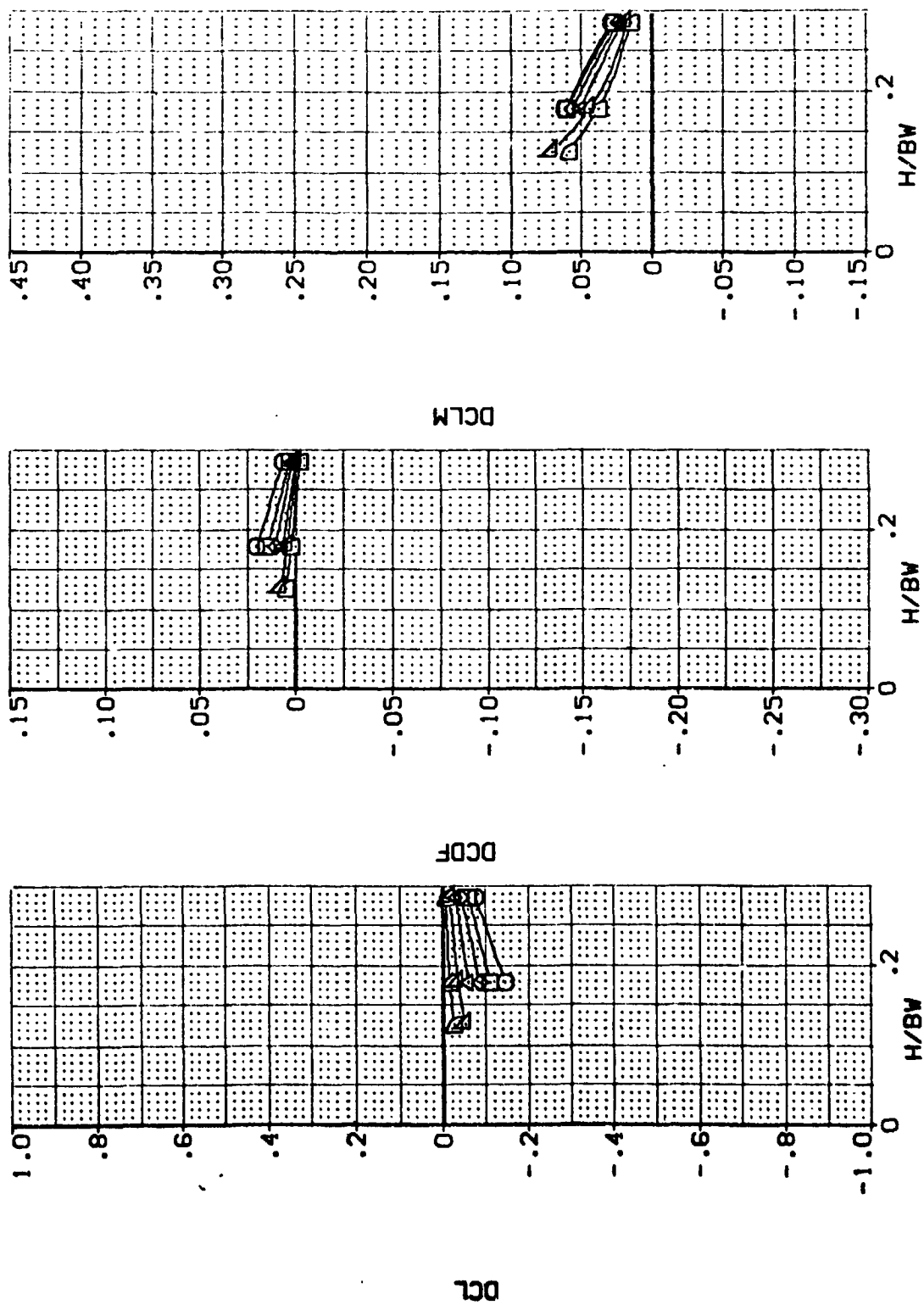


FIG 26 EFFECT OF GROUND HT.. ELEVON = -15  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDBRK	BOFLAP	REFERENCE INFORMATION
(G0Z115)	0A628 B26C3G1547F8 V116E28V8R5X9	8.000	-15.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G0Z116)	0A628 B26C3G1547F8 V116E28V8R5X9	10.000	-15.000	25.000	-12.000	LREF 19.2299 INCHES
(G0Z117)	0A628 B26C3G1547F8 V116E28V8R5X9	12.000	-15.000	25.000	-12.000	BREF 37.9359 INCHES
(G0Z118)	0A628 B26C3G1547F8 V116E28V8R5X9	14.000	-15.000	25.000	-12.000	XMRP 43.5974 INCHES
(G0Z119)	0A628 B26C3G1547F8 V116E28V8R5X9	16.000	-15.000	25.000	-12.000	YMRP 15.0000 INCHES
(G0Z120)	0A628 B26C3G1547F8 V116E28V8R5X9	18.000	-15.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

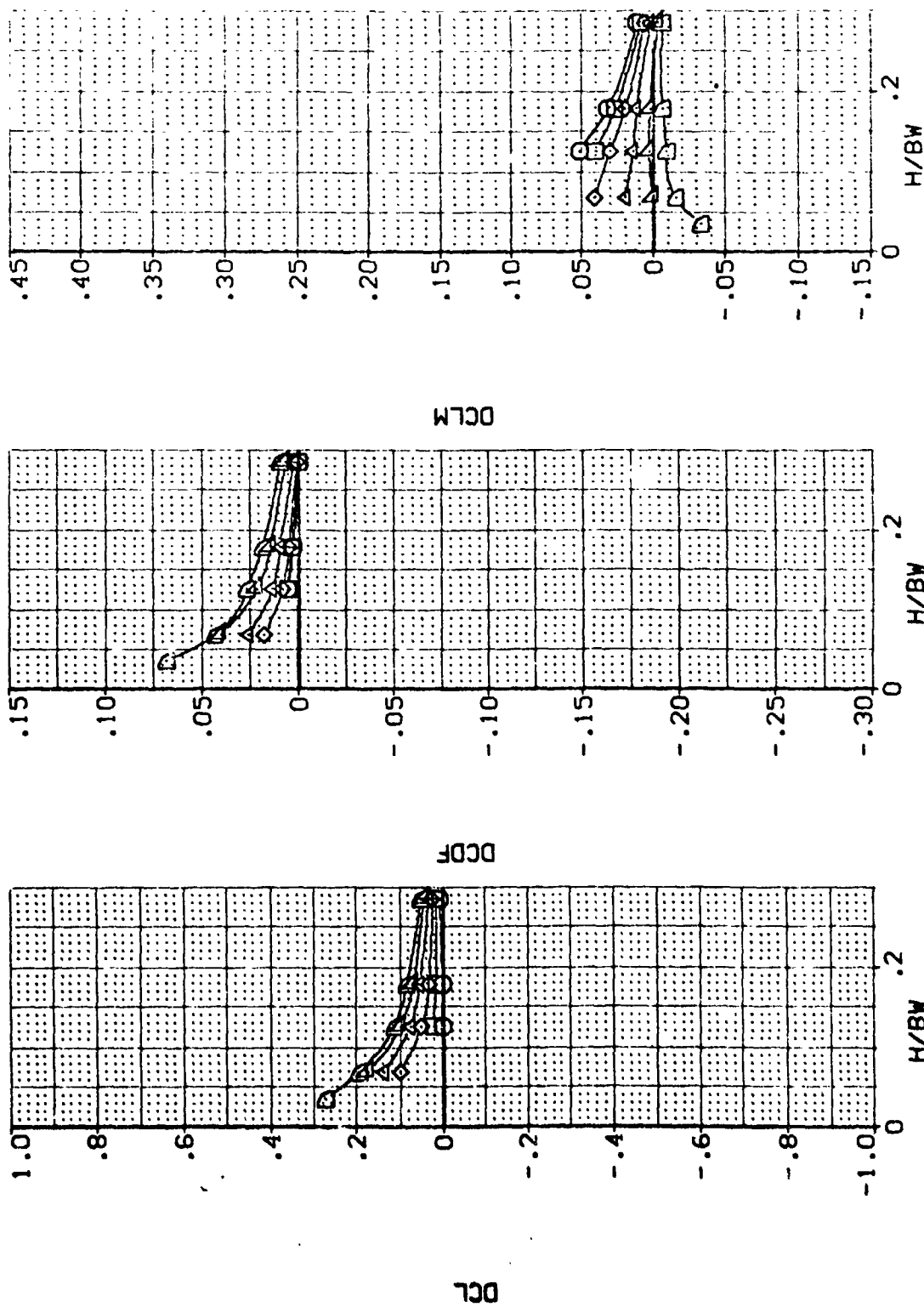


FIG 26 EFFECT OF GROUND HT., ELEVON = -15

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
(G02121)	0A528 B26C9G1547F8 V116E28V8R5X9	20.000	-15.000	25.000	-12.000	SREF 4.4119 SO.FT.
(G02122)	0A528 B26C9G1547F8 V116E28V8R5X9	22.000	-15.000	25.000	-12.000	LREF 19.2299 INCHES
(G02123)	0A528 B26C9G1547F8 V116E28V8R5X9	24.000	-15.000	25.000	-12.000	BREF 37.9359 INCHES
(G02124)	0A528 B26C9G1547F8 V116E28V8R5X9	26.000	-15.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02125)	0A528 B26C9G1547F8 V116E28V8R5X9	28.000	-15.000	25.000	-12.000	YMRP .0000 INCHES
(G02126)	0A528 B26C9G1547F8 V116E28V8R5X9	30.000	-15.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

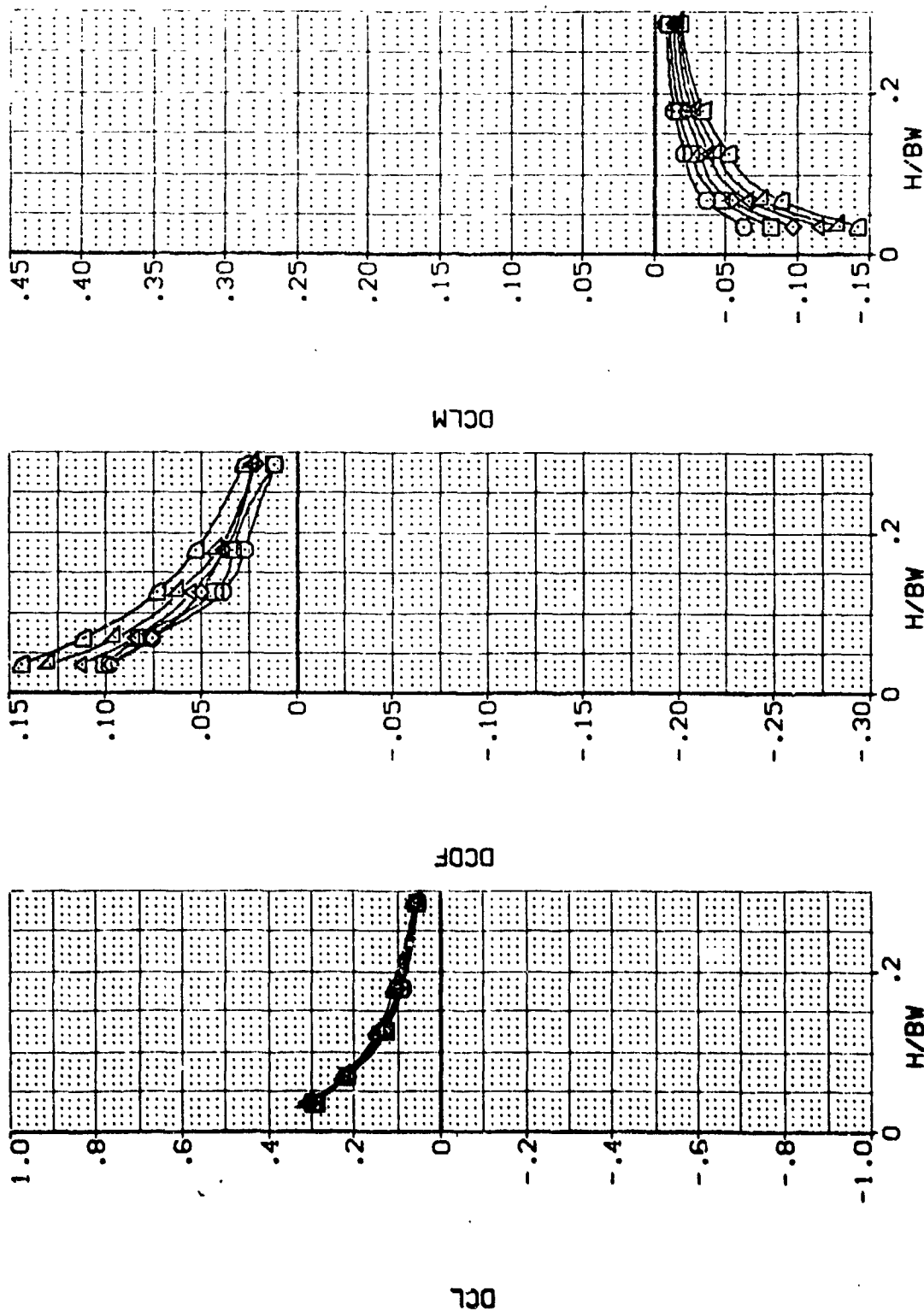


FIG 26 EFFECT OF GROUND HT., ELEVON = -15

(A)MACH = .20

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
(G02127)	□	0A628 B26C9G1SM7F8 V116E28V8R5X9	-4.000	-20.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02128)	□	0A628 B26C9G1SM7F8 V116E28V8R5X9	-2.000	-20.000	25.000	-12.000	LREF 19.2299 INCHES
(G02129)	□	0A628 B26C9G1SM7F8 V116E28V8R5X9	0.000	-20.000	25.000	-12.000	BREF 37.9359 INCHES
(G02130)	□	0A628 B26C9G1SM7F8 V116E28V8R5X9	2.000	-20.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02131)	□	0A628 B26C9G1SM7F8 V116E28V8R5X9	4.000	-20.000	25.000	-12.000	YMRP .0000 INCHES
(G02132)	□	0A628 B26C9G1SM7F8 V116E28V8R5X9	6.000	-20.000	25.000	-12.000	ZMRP 15.1875 INCHES
							SCALE .0405

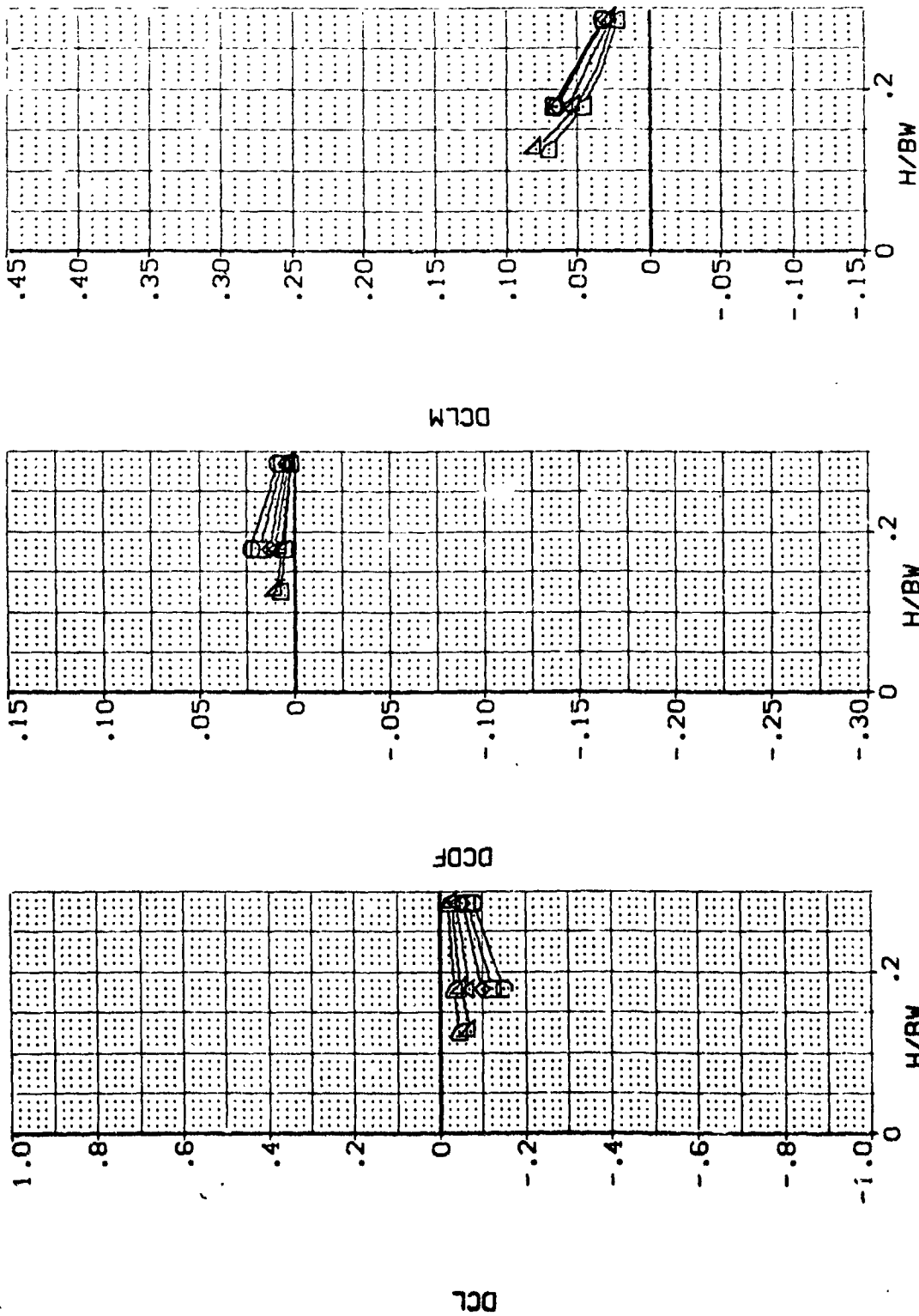


FIG 27 EFFECT OF GROUND HT., ELEVON = -20  
(A)MACH = .20



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SFOBRK	BOFLAP	REFERENCE INFORMATION
(GOZ131)	□	0A628 B26C9G1547F8 V116E28V8R5X9	8.000	-20.000	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(GOZ134)	□	0A628 B26C9G1547F8 V116E28V8R5X9	10.000	-20.000	25.000	-12.000	LREF 19.2299 INCHES
(GOZ135)	□	0A628 B26C9G1547F8 V116E28V8R5X9	12.000	-20.000	25.000	-12.000	BREF 37.9359 INCHES
(GOZ136)	□	0A628 B26C9G1547F8 V116E28V8R5X9	14.000	-20.000	25.000	-12.000	XMRP 43.5974 INCHES
(GOZ137)	□	0A628 B26C9G1547F8 V116E28V8R5X9	16.000	-20.000	25.000	-12.000	YMRP 15.0000 INCHES
(GOZ138)	□	0A628 B26C9G1547F8 V116E28V8R5X9	18.000	-20.000	25.000	-12.000	ZMRP 15.1875 INCHES
							SCALE .0405

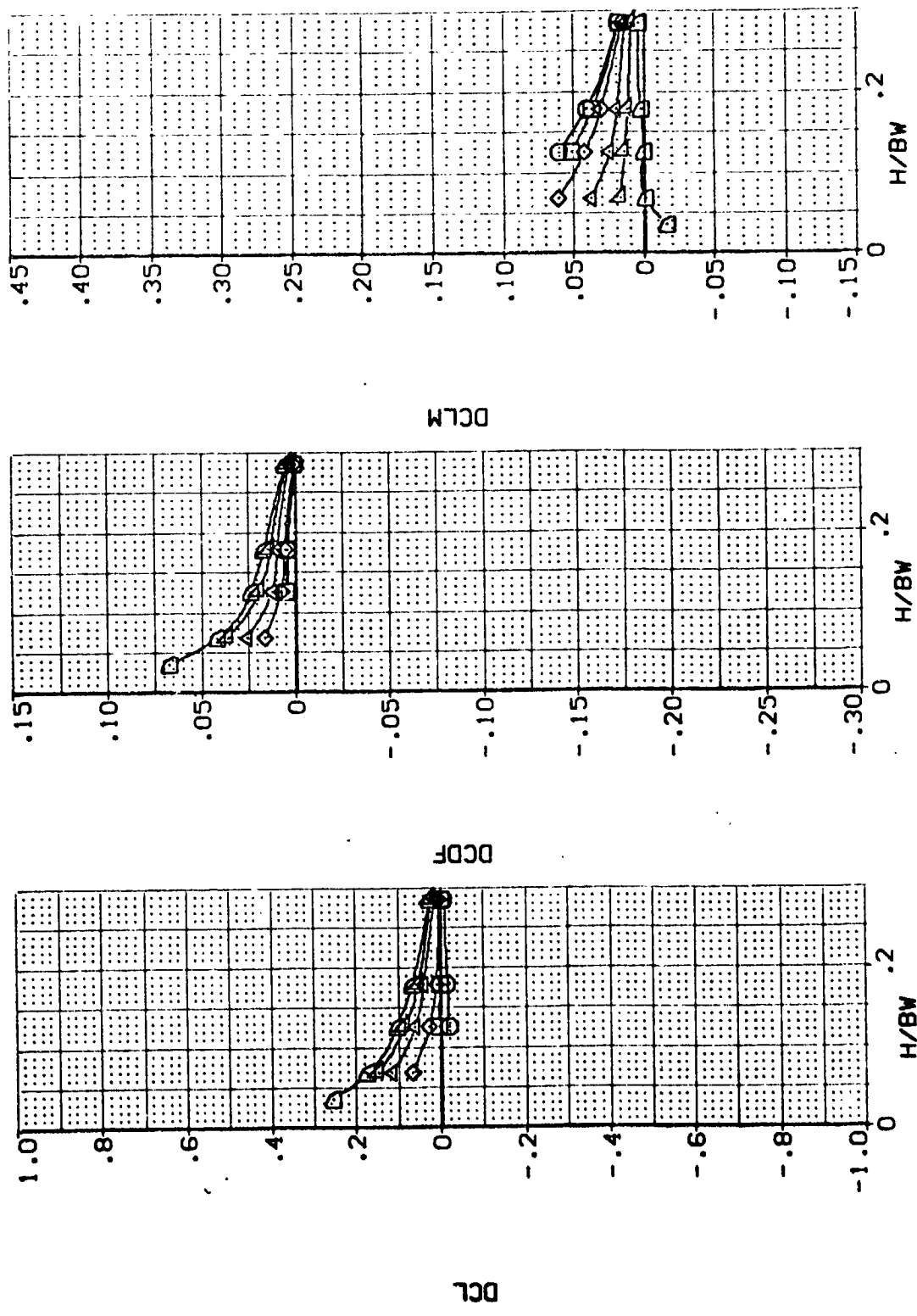


FIG 27 EFFECT OF GROUND HT., ELEVON = -20  
(A) MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(GOZ139)	0A628 B26C9G1547F8 VI16E28V8RSX9
(GOZ140)	0A628 B26C9G1547F8 VI16E28V8RSX9
(GOZ141)	0A628 B26C9G1547F8 VI16E28V8RSX9
(GOZ142)	0A628 B26C9G1547F8 VI16E28V8RSX9
(GOZ143)	0A628 B26C9G1547F8 VI16E28V8RSX9
(GOZ144)	0A628 B26C9G1547F8 VI16E28V8RSX9

ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
20.000	-20.000	25.000	-12.000	SREF 4.4119 50. FT.
22.000	-20.000	25.000	-12.000	LREF 19.2299 INCHES
24.000	-20.000	25.000	-12.000	BREF 37.9359 INCHES
26.000	-20.000	25.000	-12.000	XMRP 43.5974 INCHES
28.000	-20.000	25.000	-12.000	YMRP .0000 INCHES
30.000	-20.000	25.000	-12.000	ZMRP 15.1875 INCHES
				SCALE .0405

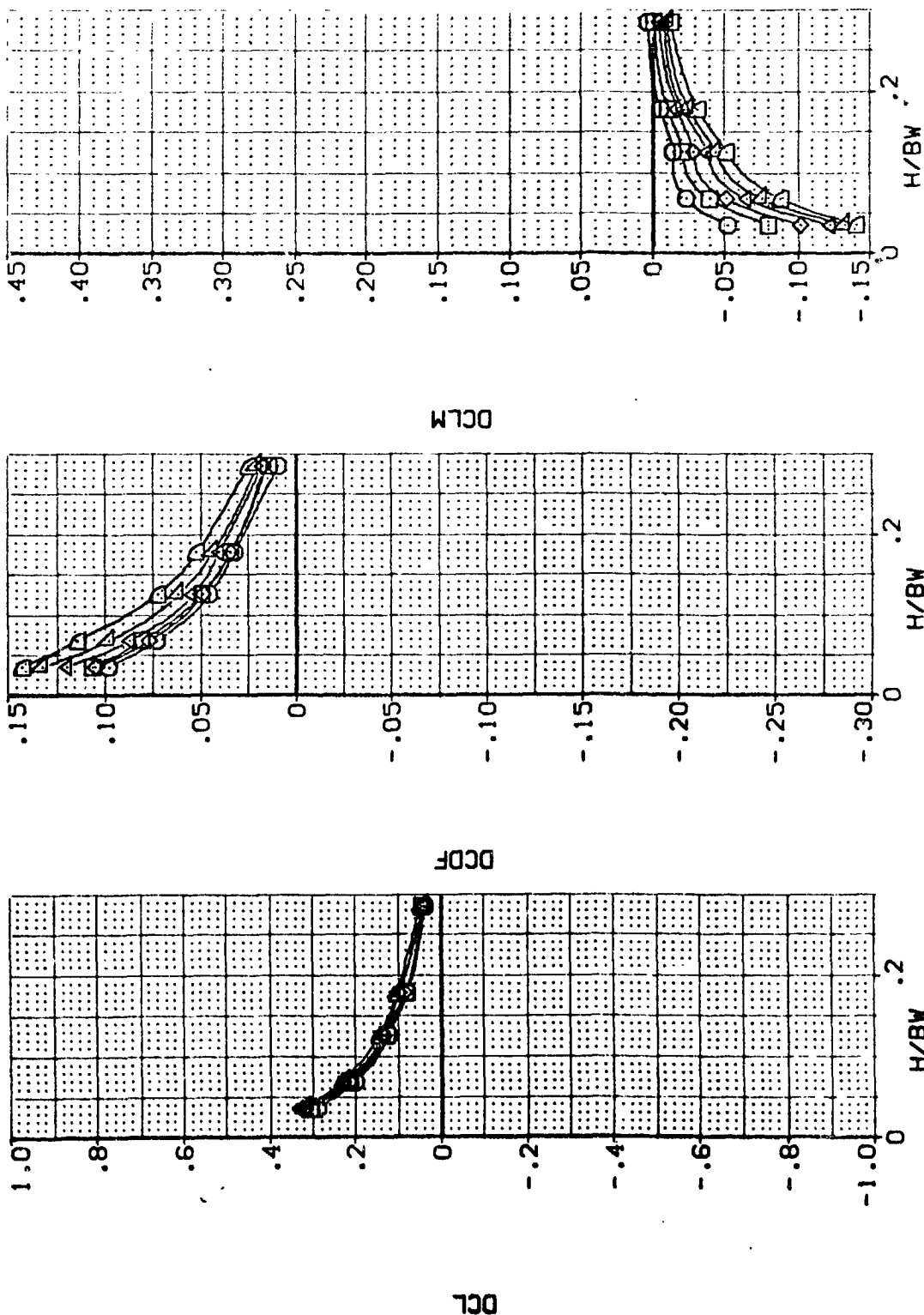


FIG 27 EFFECT OF GROUND HT., ELEVON = -20

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SFOBRK	BOFLAP	REFERENCE INFORMATION		
(G0Z145)	0A528 B26C9G1 SMTF8	-4.000	-30.000	25.000	-12.000	SREF	4.4119	SO.FT.
(G0Z146)	0A528 B26C9G1 SMTF8	-2.000	-30.000	25.000	-12.000	LREF	19.2299	INCHES
(G0Z147)	0A528 B26C9G1 SMTF8	2.000	-30.000	25.000	-12.000	BREF	37.9359	INCHES
(G0Z148)	0A528 B26C9G1 SMTF8	4.000	-30.000	25.000	-12.000	XMRP	43.5974	INCHES
(G0Z149)	0A528 B26C9G1 SMTF8	6.000	-30.000	25.000	-12.000	YMRP	.0000	INCHES
(G0Z150)	0A528 B26C9G1 SMTF8					ZMRP	15.1875	INCHES
						SCALE	.0405	SCALE

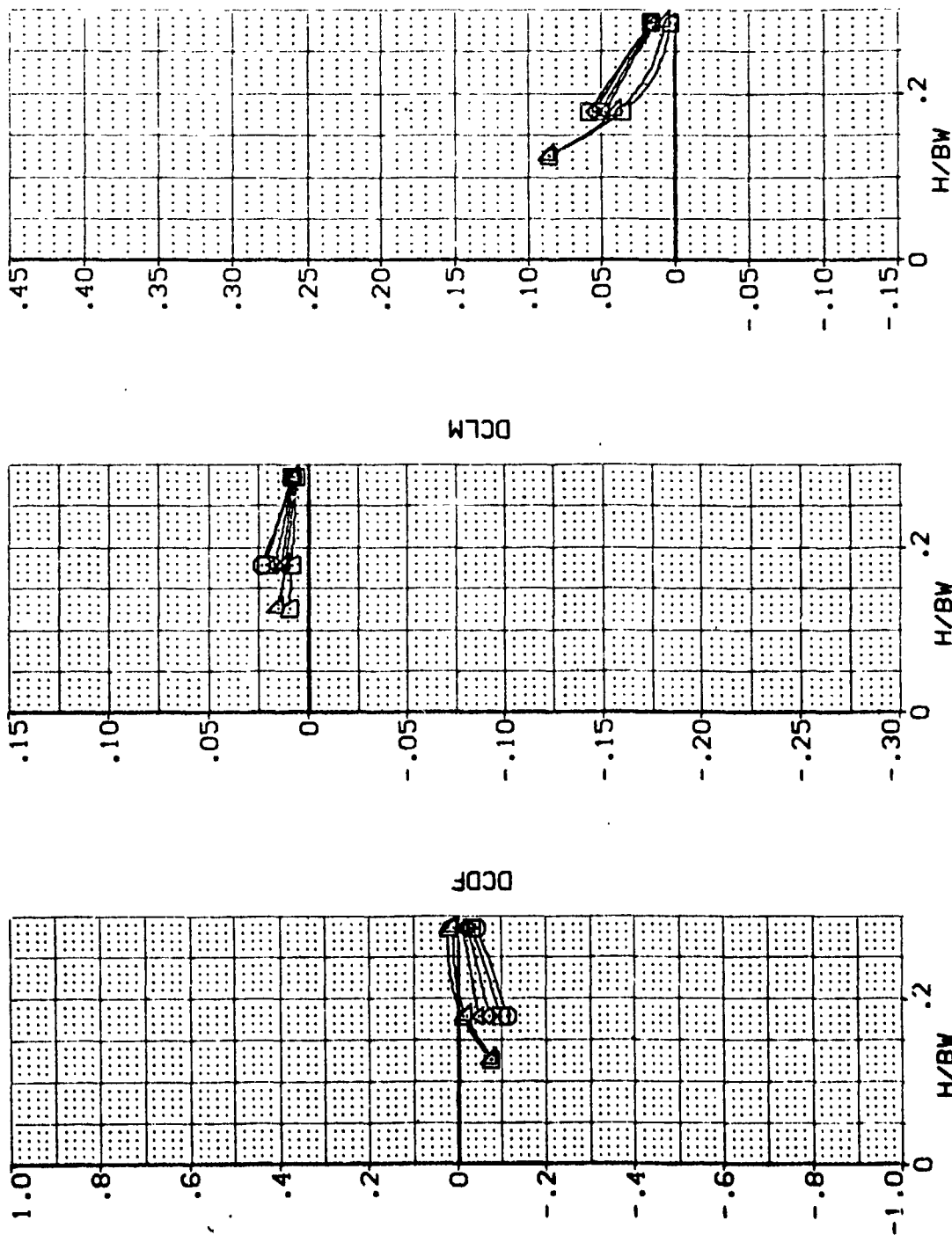


FIG 28 EFFECT OF GROUND HT., ELEVON = -30

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
(G0Z151)	0A628 B26C3G15H7F8 V116E28V8K5X9	8.000	-30.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G0Z152)	0A628 B26C3G15H7F8 V116E28V8K5X9	10.000	-30.000	25.000	-12.000	LREF 19.2299 INCHES
(G0Z153)	0A628 B26C3G15H7F8 V116E28V8K5X9	12.000	-30.000	25.000	-12.000	BREF 37.9359 INCHES
(G0Z154)	0A628 B26C3G15H7F8 V116E28V8K5X9	14.000	-30.000	25.000	-12.000	XMRP 43.5974 INCHES
(G0Z155)	0A628 B26C3G15H7F8 V116E28V8K5X9	16.000	-30.000	25.000	-12.000	ZMRP .0000 INCHES
(G0Z156)	0A628 B26C3G15H7F8 V116E28V8K5X9	18.000	-30.000	25.000	-12.000	SCALE 15.1875 INCHES

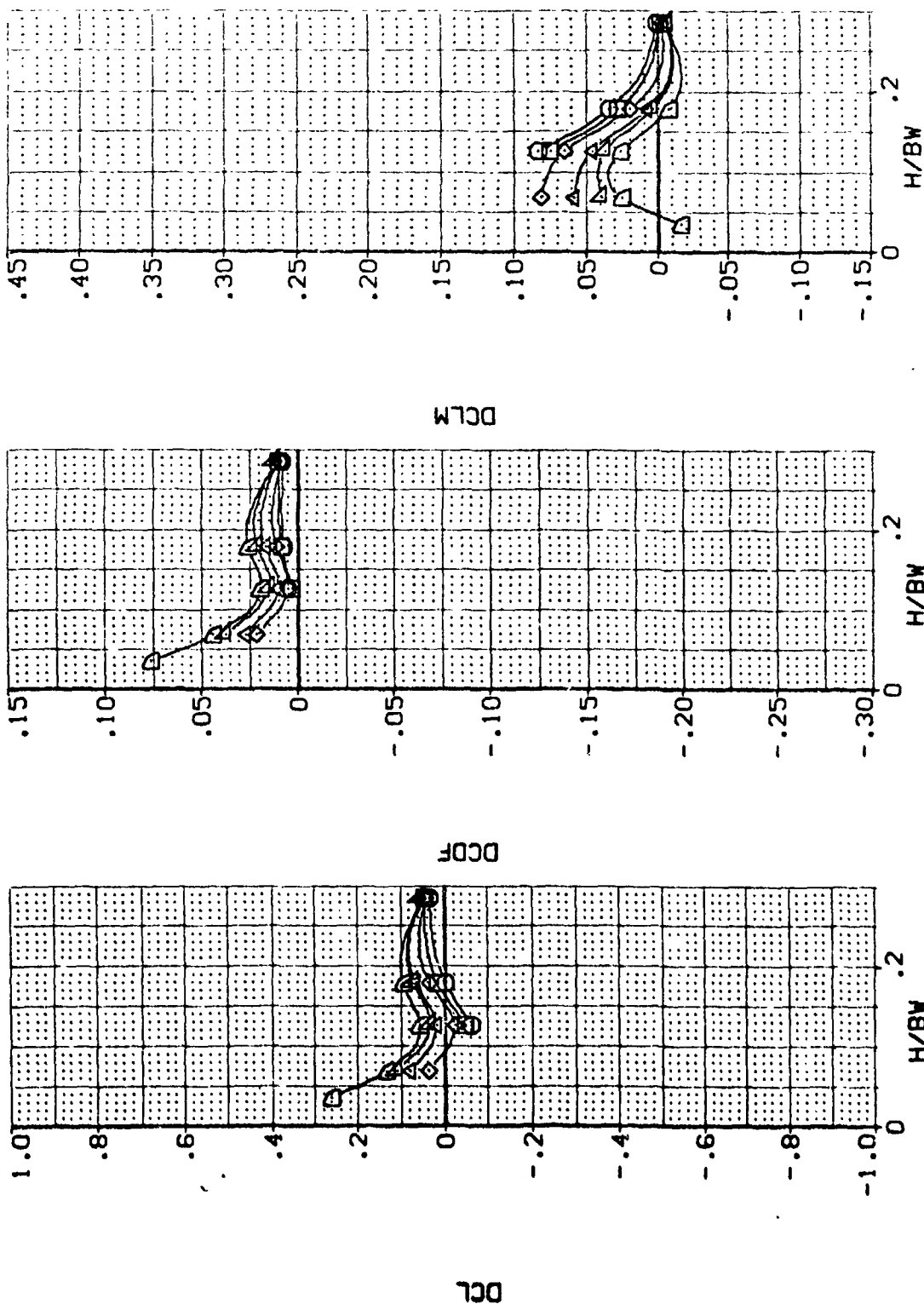


FIG 28 EFFECT OF GROUND HT., ELEVON = -30

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPOBRK	BOFLAP	REFERENCE INFORMATION
(G02157)	0A628 B26C9G1547F8 V116E28V8RSX9	20.000	-30.000	25.000	-12.000	SREF 4.4119 SO.FT. INCHES
(G02158)	0A628 B26C9G1547F8 V116E28V8RSX9	22.000	-30.000	25.000	-12.000	LREF 19.2299 INCHES
(G02159)	0A628 B26C9G1547F8 V116E28V8RSX9	24.000	-30.000	25.000	-12.000	BREF 37.9359 INCHES
(G02160)	0A628 B26C9G1547F8 V116E28V8RSX9	26.000	-30.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02161)	0A628 B26C9G1547F8 V116E28V8RSX9	28.000	-30.000	25.000	-12.000	YMRP .0000 INCHES
(G02162)	0A628 B26C9G1547F8 V116E28V8RSX9	30.000	-30.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

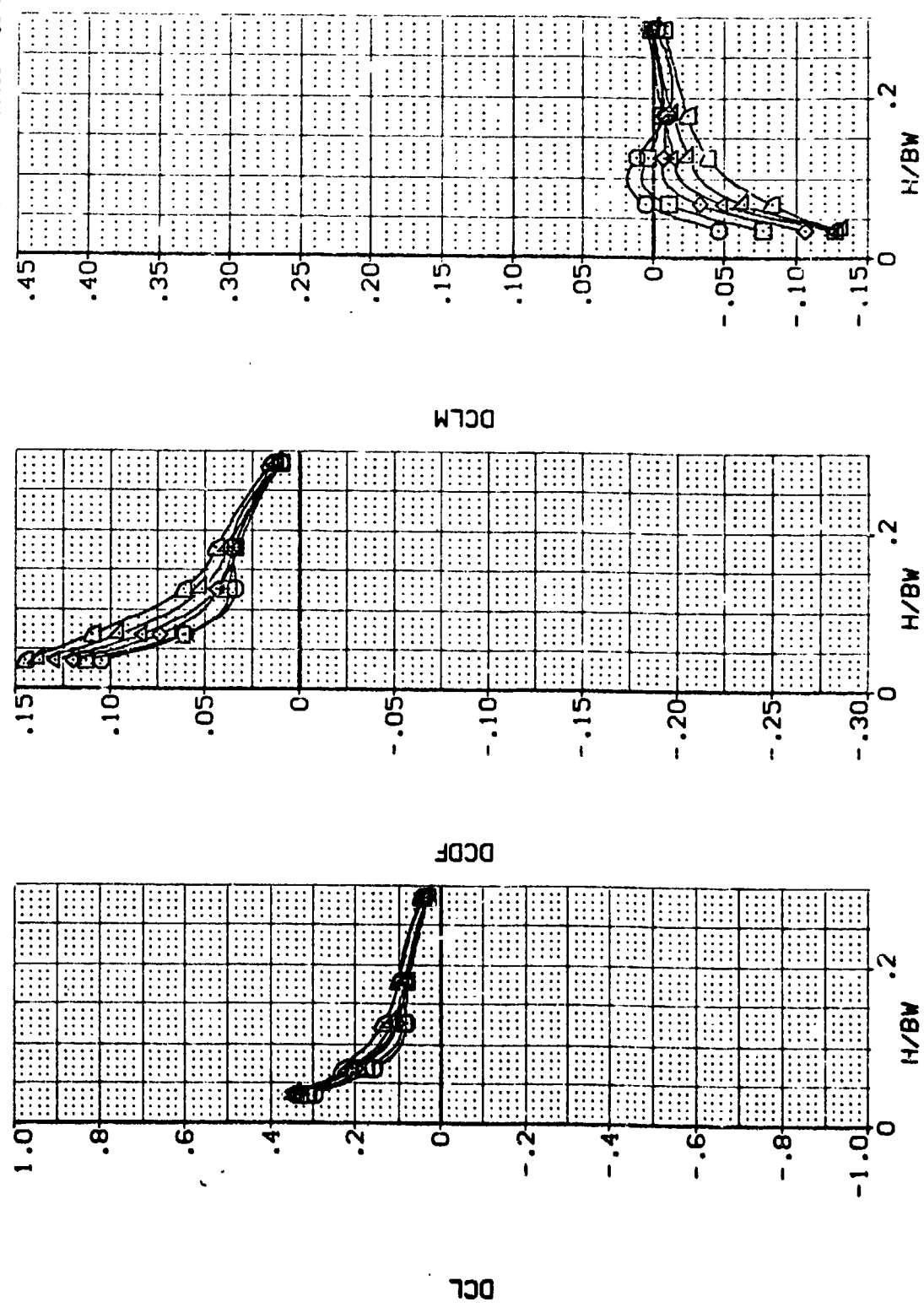


FIG 28 EFFECT OF GROUND HT., ELEVON = -30  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDRBK	BOFLAP	REFERENCE INFORMATION
(G02163)	DA628 B26C9G1S47F8 V116E28V8R5X9	-4.000	-40.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02164)	DA628 B26C9G1S47F8 V116E28V8R5X9	-2.000	-40.000	25.000	-12.000	LREF 19.2299 INCHES
(G02165)	DA628 B26C9G1S47F8 V116E28V8R5X9	.000	-40.000	25.000	-12.000	BREF 37.9359 INCHES
(G02166)	DA628 B26C9G1S47F8 V116E28V8R5X9	2.000	-40.000	25.000	-12.000	XMRP 43.5974 INCHES
(G02167)	DA628 B26C9G1S47F8 V116E28V8R5X9	4.000	-40.000	25.000	-12.000	YMRP .0000 INCHES
(G02168)	DA628 B26C9G1S47F8 V116E28V8R5X9	6.000	-40.000	25.000	-12.000	ZMRP 15.1875 INCHES
						SCALE .0405

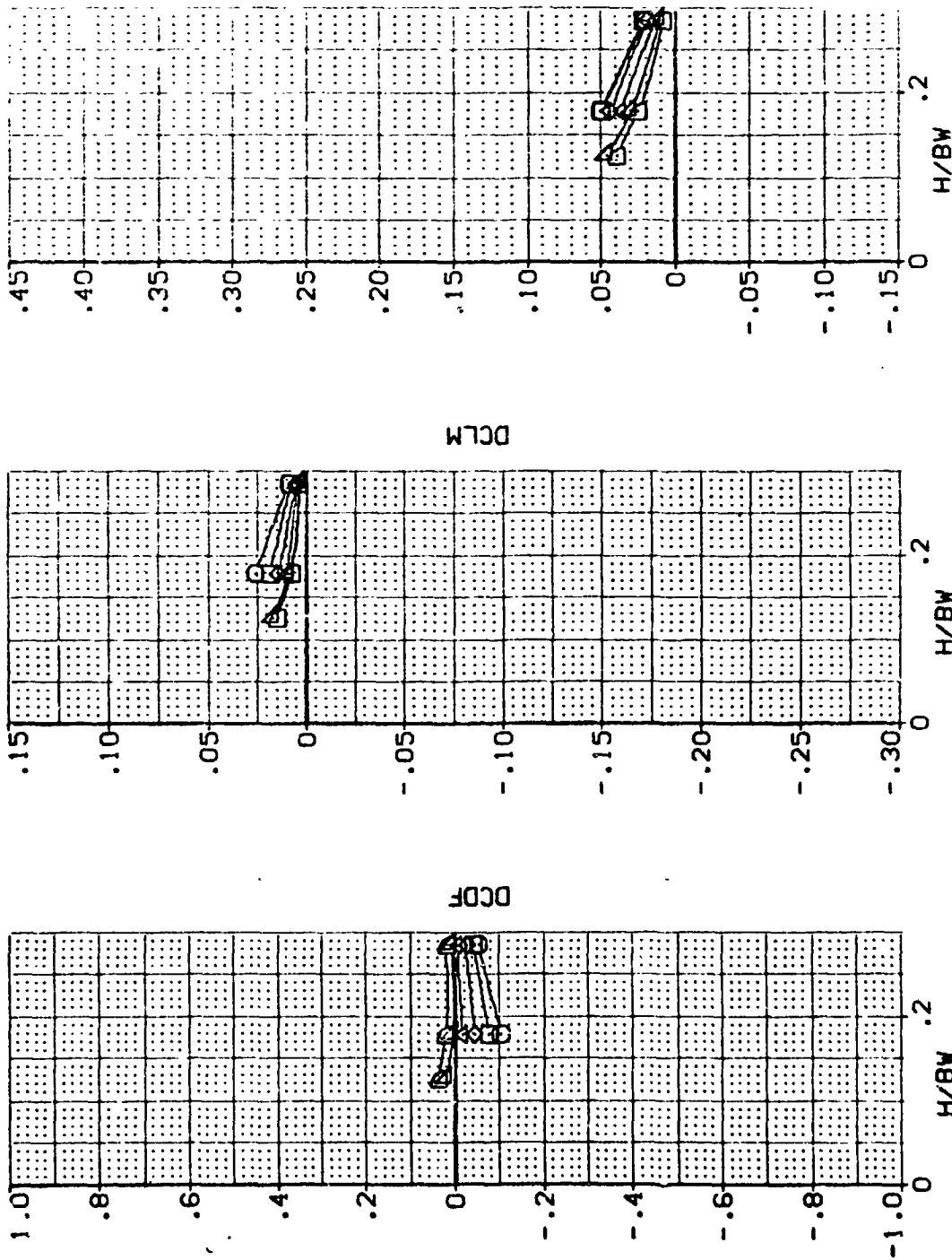


FIG 29 EFFECT OF GROUND HT., ELEVON = -40

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(G02169)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02170)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02171)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02172)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02173)	0A628	B26C9G1547F8	V116E28V8R5X9
(G02174)	0A628	B26C9G1547F8	V116E28V8R5X9

ALPHA ELEVON SPOBRK BOFLAP REFERENCE INFORMATION

ALPHA	ELEVON	SPOBRK	BOFLAP	SREF	4.4119	SO.FT.
8.000	-40.000	25.000	-12.000	LREF	19.2299	INCHES
10.000	-40.000	25.000	-12.000	BREF	37.9359	INCHES
12.000	-40.000	25.000	-12.000	YMRP	43.5974	INCHES
14.000	-40.000	25.000	-12.000	ZMRP	15.1875	INCHES
16.000	-40.000	25.000	-12.000	SCALE	.0405	SCALE
18.000	-40.000	25.000	-12.000			

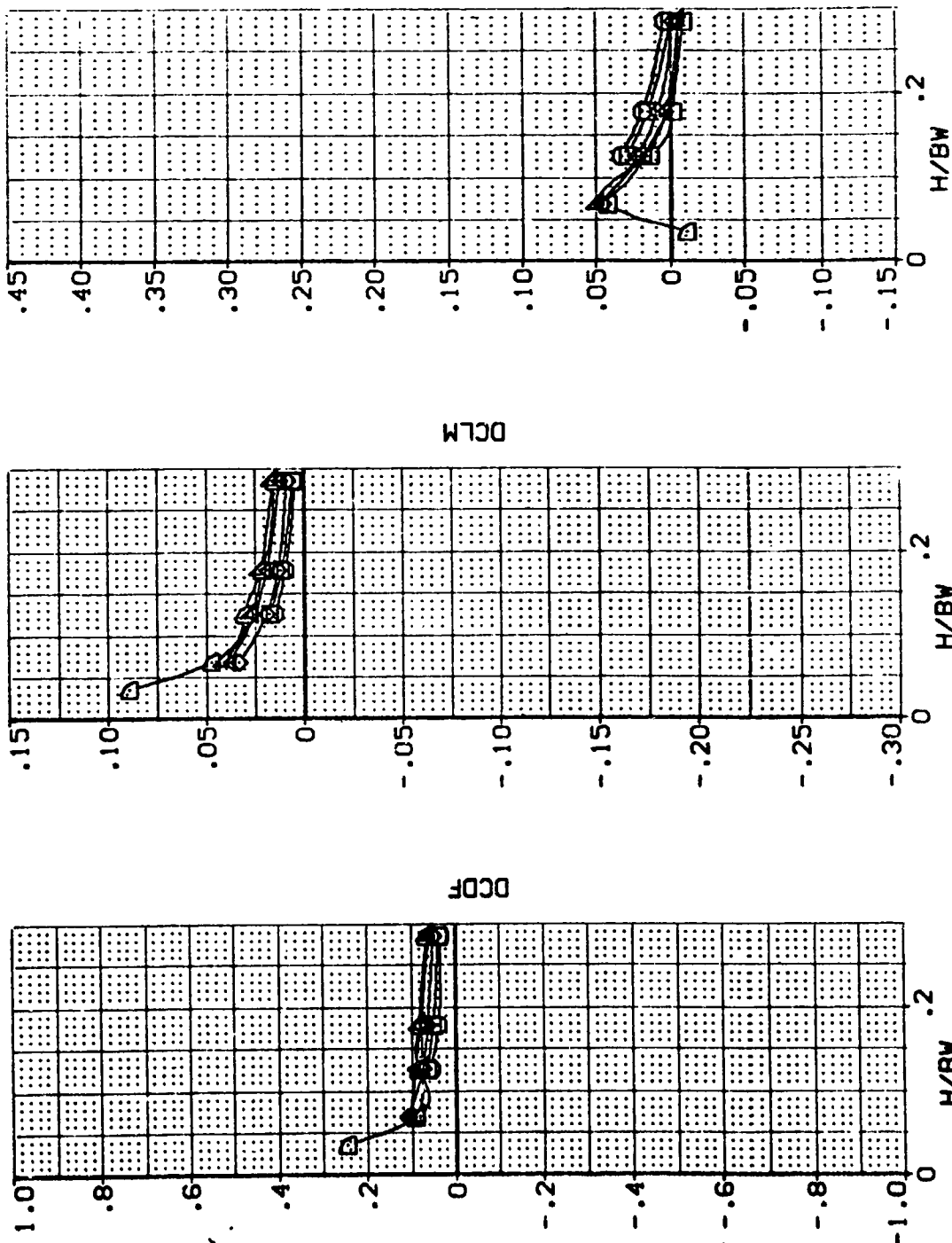


FIG 29 EFFECT OF GROUND HT., ELEVON = -40

(A) MACH = .20

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDBRK	BOFLAP	REFERENCE INFORMATION
(G02175)	□	0A628 B26C9G1547F8 V116E28V8RSX9	20.000	-40.000	25.000	-12.000	SREF 4.4119 SQ.FT.
(G02176)	○	0A628 B26C9G1547F8 V116E28V8RSX9	22.000	-40.000	25.000	-12.000	LREF 19.2259 INCHES
(G02177)	△	0A628 B26C9G1547F8 V116E28V8RSX9	24.000	-40.000	25.000	-12.000	BREF 37.9359 INCHES
(G02178)	◇	0A628 B26C9G1547F8 V116E28V8RSX9	26.000	-40.000	25.000	-12.000	XREF 43.5974 INCHES
(G02179)	▽	0A628 B26C9G1547F8 V116E28V8RSX9	28.000	-40.000	25.000	-12.000	YREF 15.1875 INCHES
(G02180)	◻	0A628 B26C9G1547F8 V116E28V8RSX9	30.000	-40.000	25.000	-12.000	ZREF .0405 INCHES

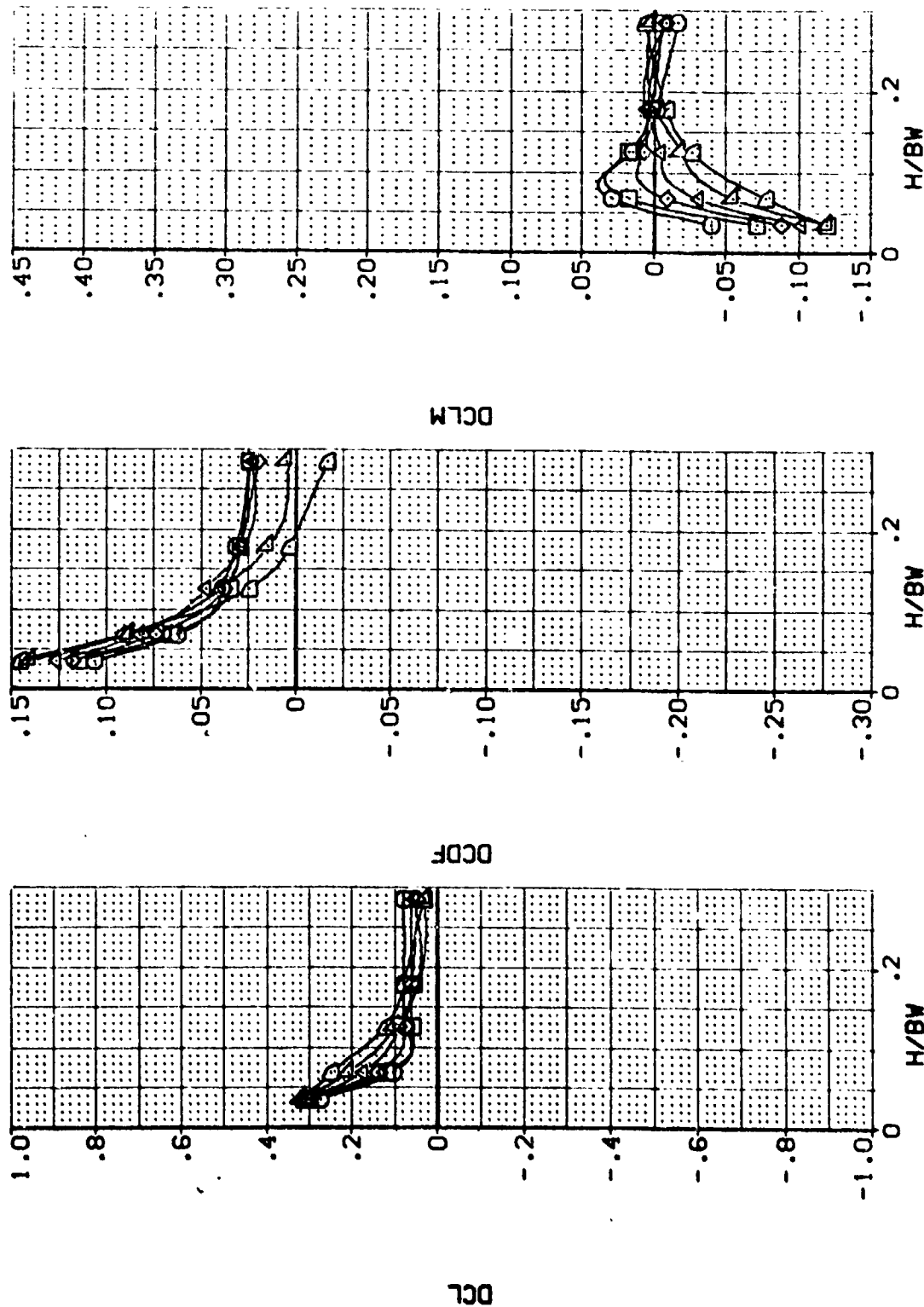


FIG 29 EFFECT OF GROUND HT., ELEVON = -40

(A)MACH = .20





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORCK	BOFLAP	REFERENCE INFORMATION
(D02001)	04628 B26C5G1547F8 V116E28V85X9	.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02073)	04628 B26C5G1547F8 V116E28V85X10	.000	.285	.000	-12.000	LREF 19.2299 INCHES
(B02077)	04628 B26C5G1547F8 V116E28V85X10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

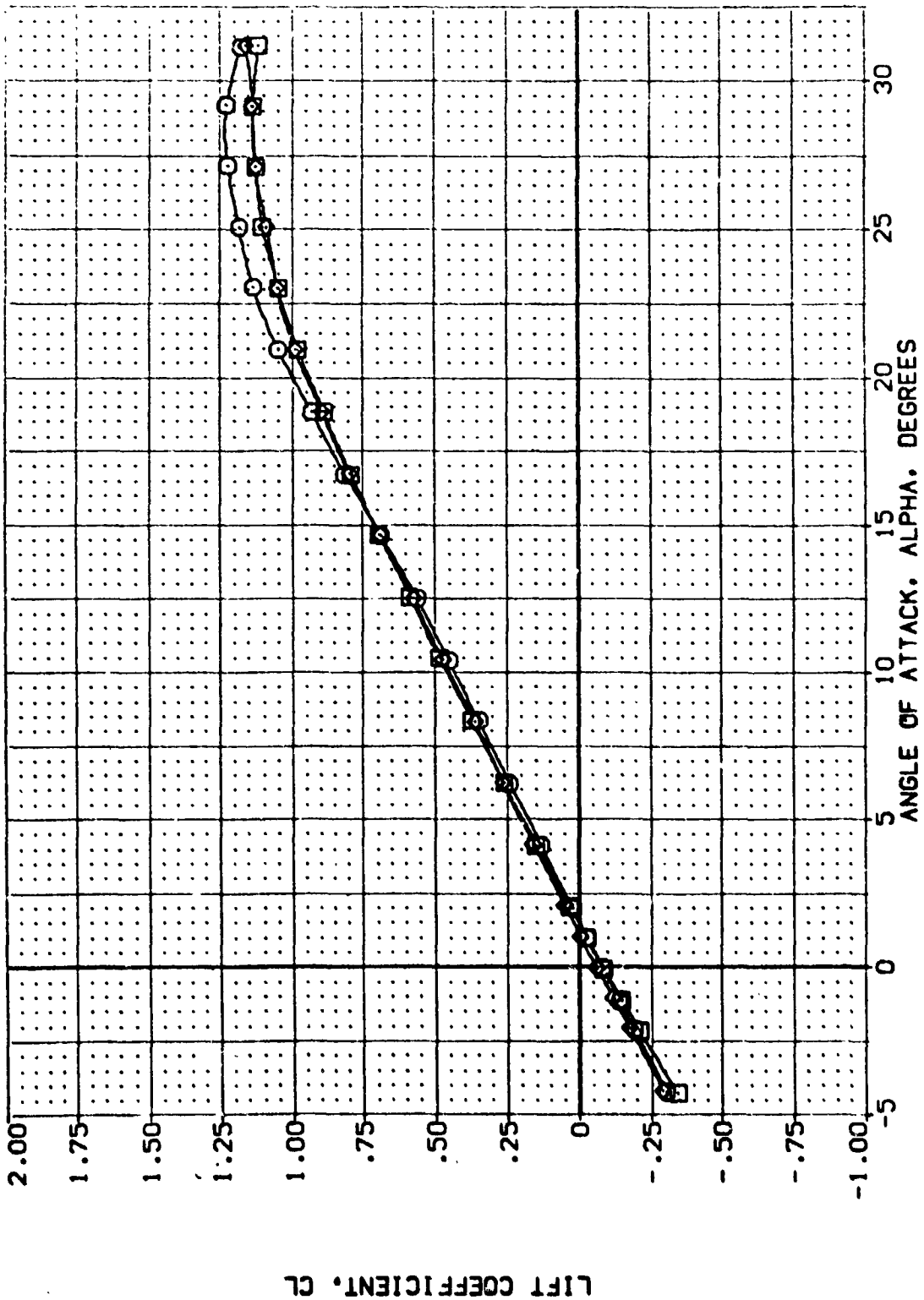


FIG 30 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .285 ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802001)	0A628 B26C9G1547F8 V116E28V8RSX9	.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(802073)	0A628 B26C9G1547F8J3V116E28V8RSX10	.000	.285	.000	-12.000	LREF 19.2299 INCHES
(802077)	0A628 B26C9G1547F8J62V116E28V8RSX10	.000	.285	.000	-12.000	BREF 37.9353 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

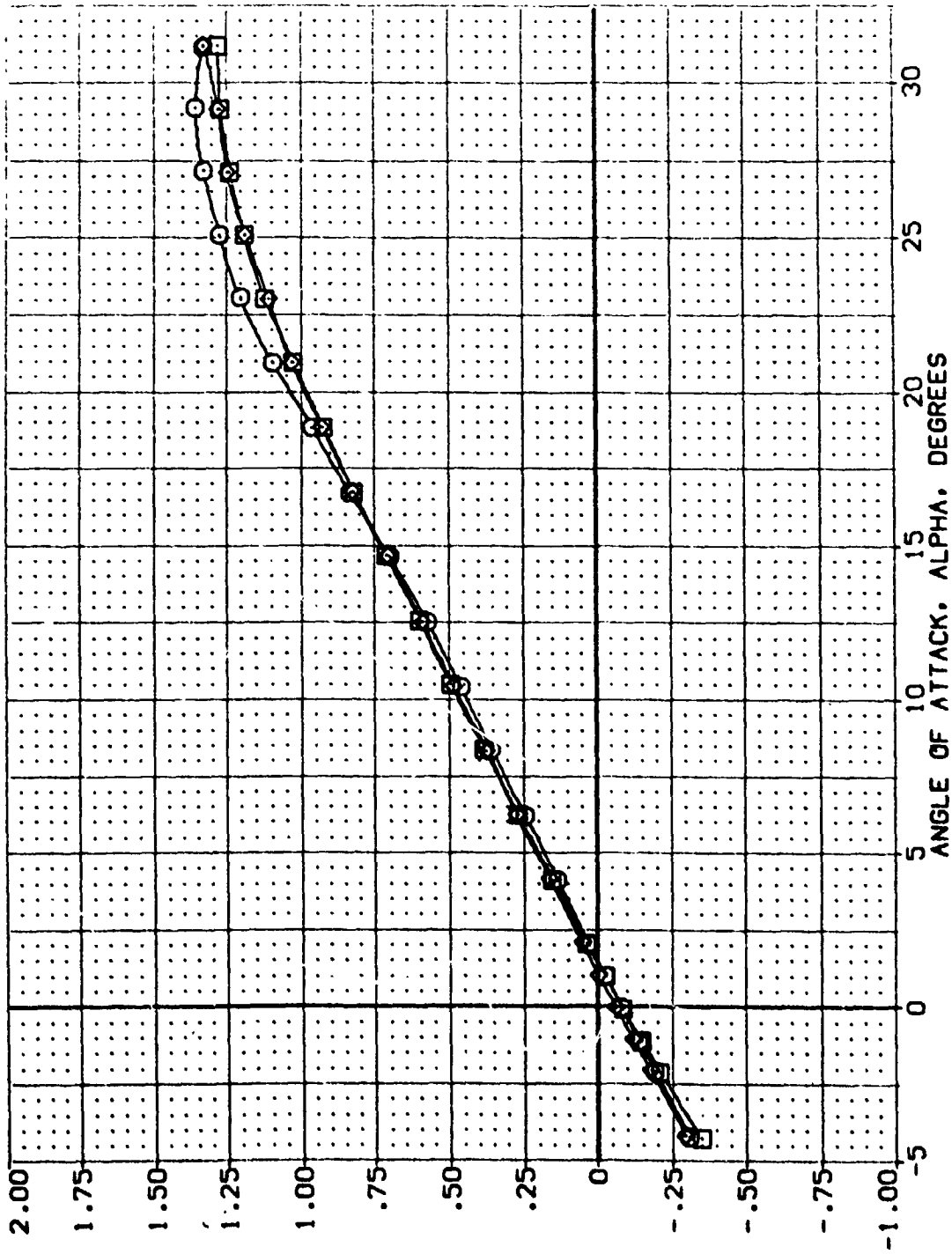


FIG 30 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .285 ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(B02001)	0A628 B26C56 547F8 V116E26V8R5X9	.000	.285	25.000	-12.000	SREF 4.4119 SO.FT.
(B02073)	0A628 B26C56 547F8443V116E26V8R5X10	.000	.285	.000	-12.000	LREF 19.2299 INCHES
(B02077)	0A628 B26C56 547F8462V116E26V8R5X10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1873 INCHES
						SCALE .0405

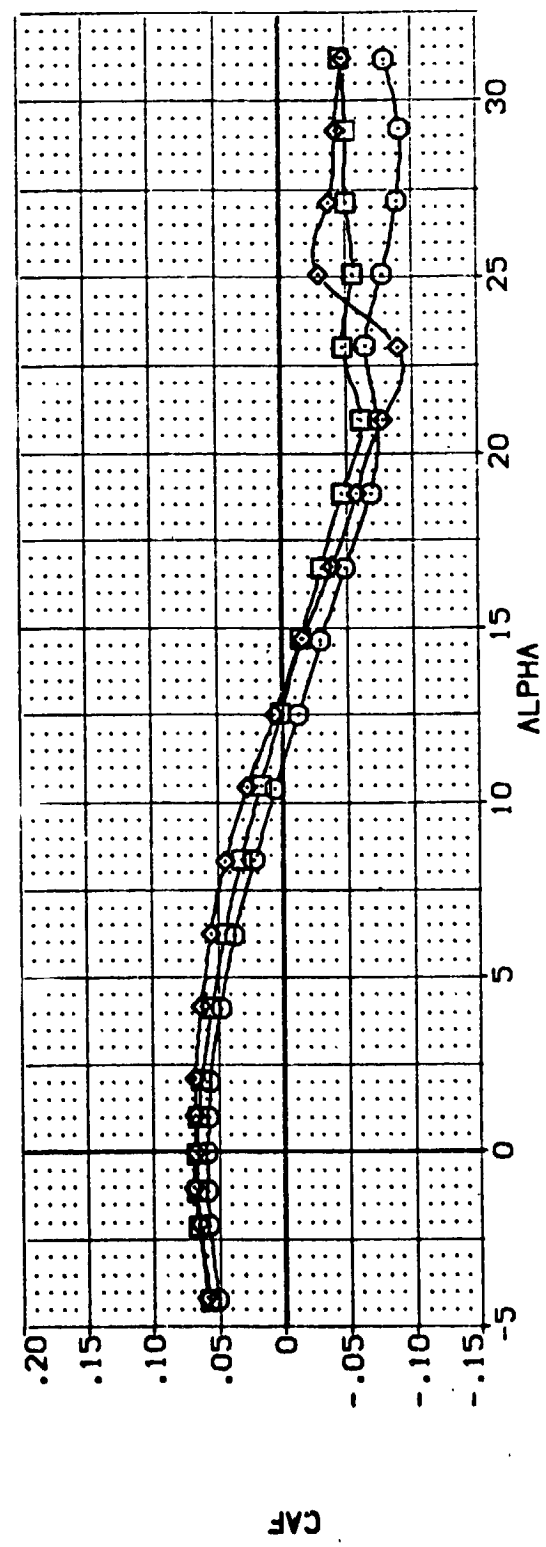
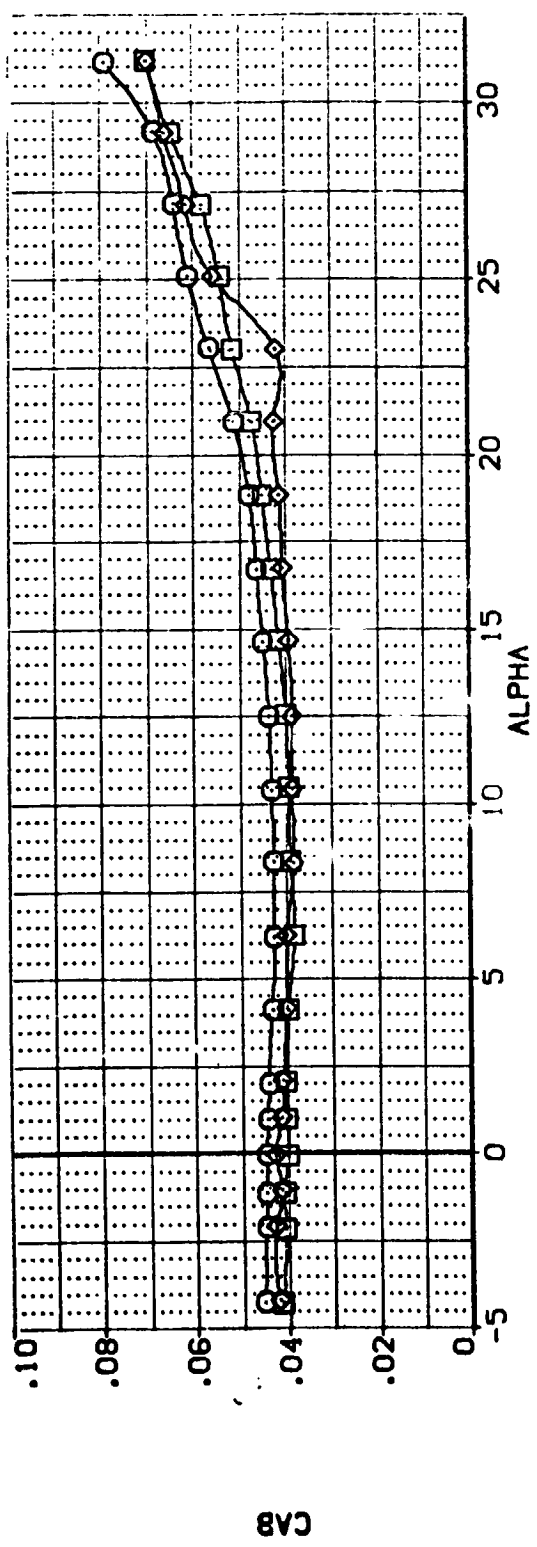


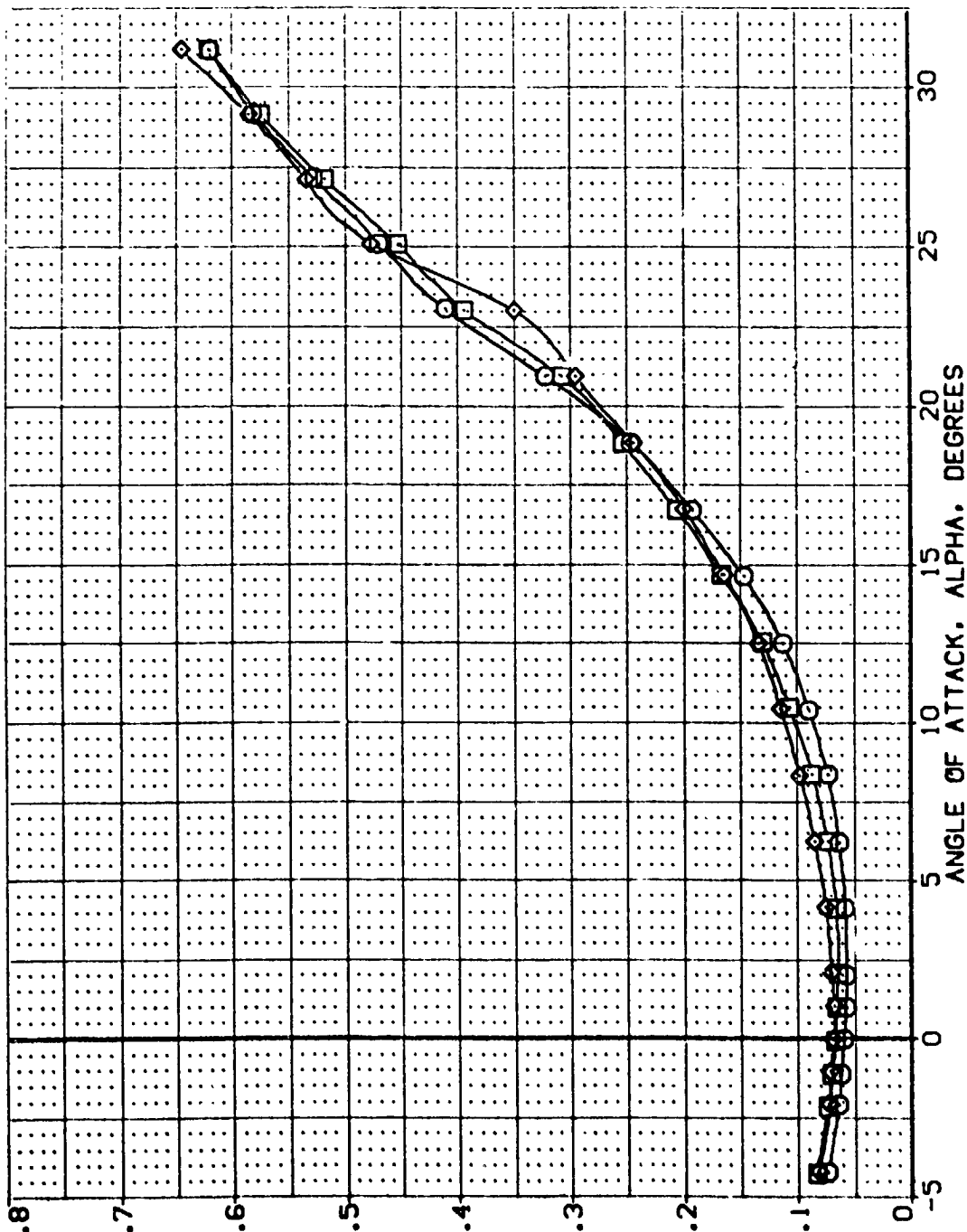
FIG 30 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .285 ELEVON = 0  
 (A)MACH = .20 PAGE 319

# DATA SET SYMBOL

(802001) OAG28 B26C3G|547F8 V11E28V8R3X49  
 (802073) OAG28 B26C3G|547F8J43V11E28V8R3X10  
 (802077) OAG28 B26C3G|547F8J62V11E28V8R3X10

ELEVON H/BW SPOBRK BOFLAP  
 .000 .285 25.000 -12.000  
 .000 .285 .000 -12.000  
 .000 .285 .000 -12.000

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405



FOREBODY DRAG COEFFICIENT, CDF

FIG 30 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .285 ELEVON = 0

(A)MACH = .20

61

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(802001)	0A528 B26C3G1547F8 V116E28V8R5X9	.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(802073)	0A528 B26C3G1547F8J43V116E28V8R5X10	.000	.285	.000	-12.000	LREF 19.2298 INCHES
(802077)	0A528 B26C3G1547F8J62V116E28V8R5X10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP 15.0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

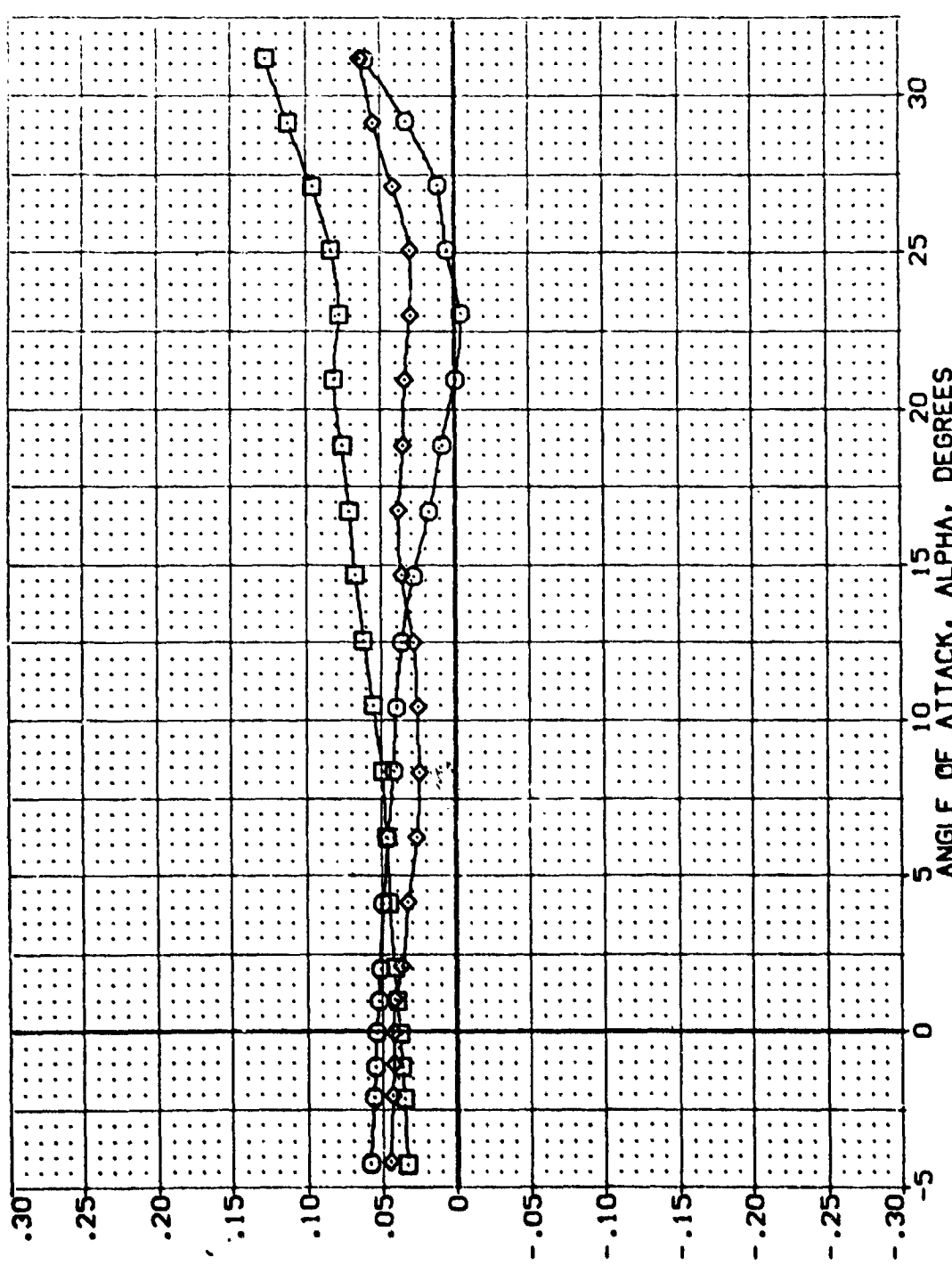


FIG 30 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .285 ELEVON = 0  
(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (BD2001) 04628 826C9G15W78 V116E28V85X9  
 (BD2073) 04628 826C9G15W78J43V116E28V85X10  
 (BD2077) 04628 826C9G15W78J62V116E28V85X10

ELEVON H/BW SPOBK BOFLAP REFERENCE INFORMATION  
 .000 .285 25.000 -12.000 SREF 4.4119 50.FT.  
 .000 .285 .000 -12.000 LREF 19.2299 INCHES  
 .000 .285 .000 -12.000 BREF 37.9359 INCHES  
 YMRP 43.5974 INCHES  
 ZMRP 15.0000 INCHES  
 SCALE 15.1875 INCHES  
 .0405 SCALE

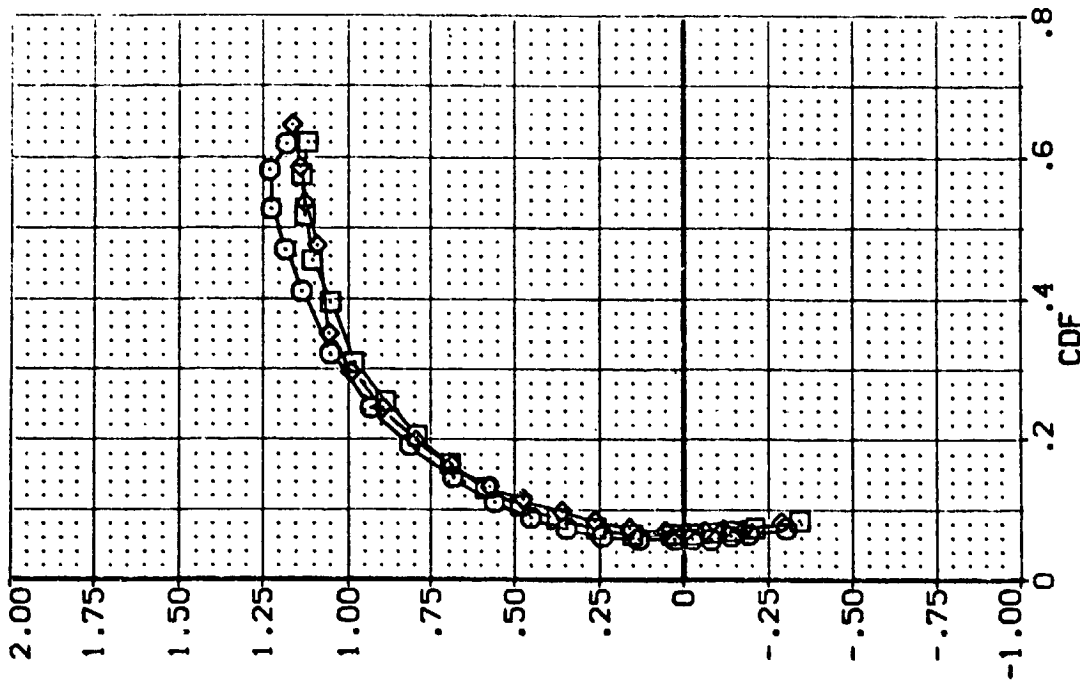
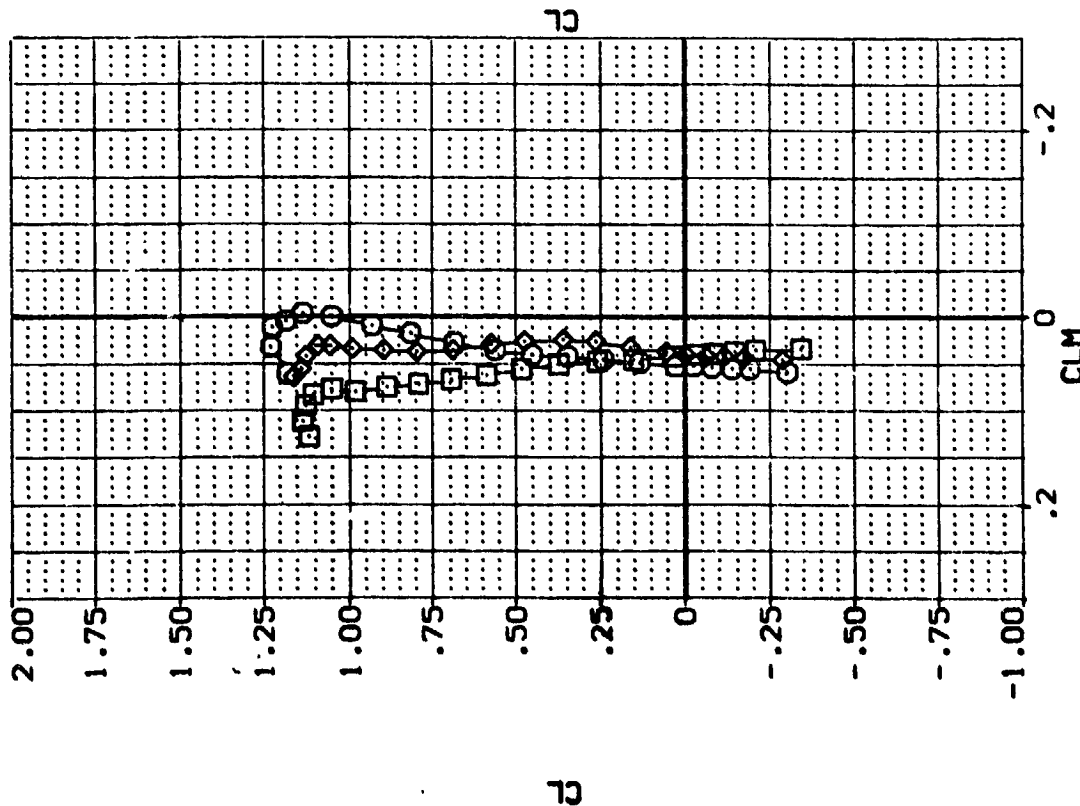


FIG 30 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .285 ELEVON = 0

(A)MACH = .20

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802001) 0A528 B26C5G 04758 V1152 20V8R5X9  
 (802073) 0A528 B26C5G 04758 V142V1152 20V8R5X10  
 (802077) 0A528 B26C5G 04758 V162V1152 20V8R5X10

ELEVON H/BW SPOBRK BDFLAP REFERENCE INFORMATION  
 .000 .285 25.000 -12.000 SREF 4.4119 50. FT.  
 .000 .285 .000 -12.000 LREF 19.2299 INCHES  
 .000 .285 .000 -12.000 XTRP 37.9359 INCHES  
 YMRP 43.5974 INCHES  
 ZMRP .0000 INCHES  
 SCALE 15.1875 INCHES  
 .0405 SCALE

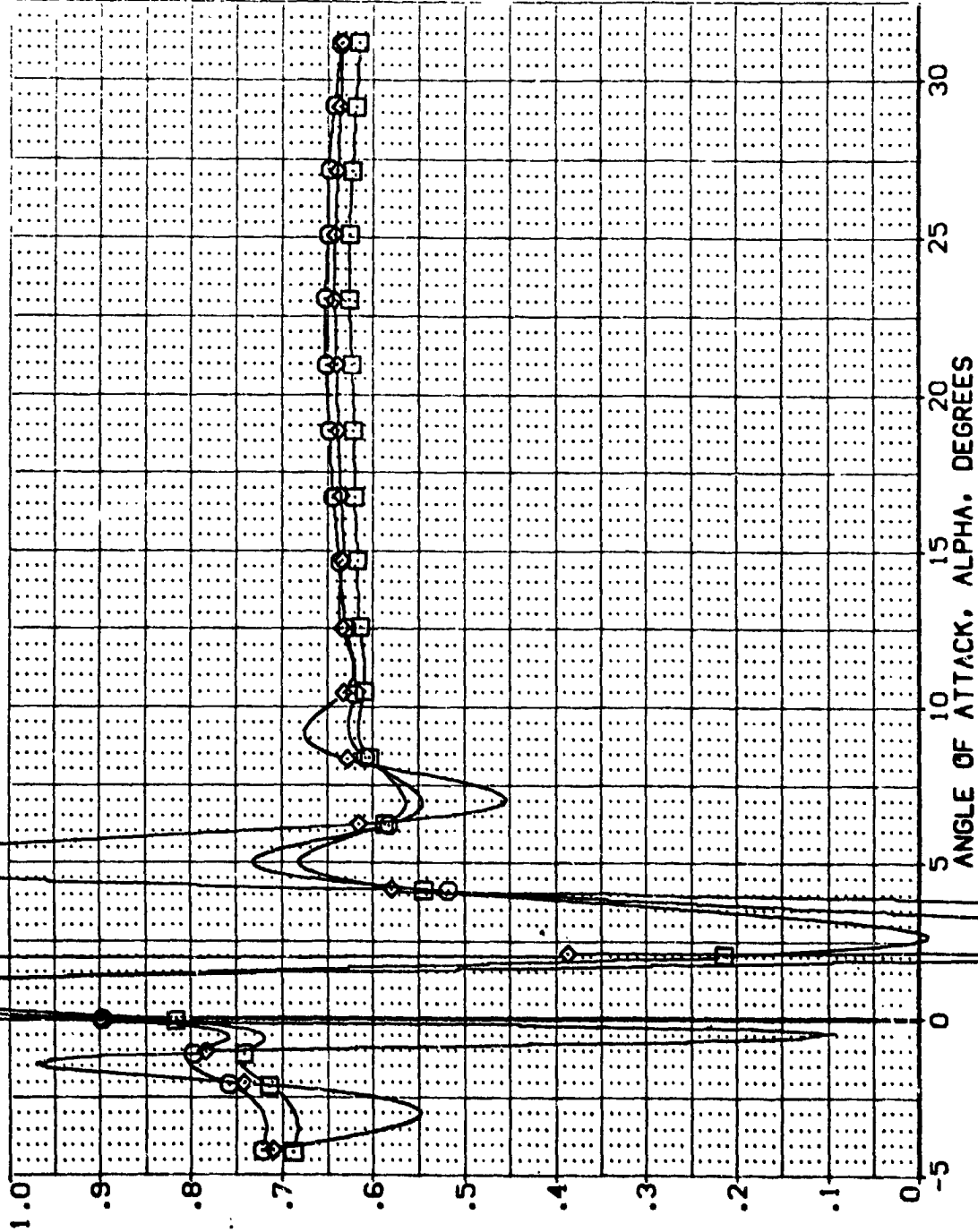


FIG 30 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .285 ELEVON = 0  
 (A)MACH = .20 PAGE 323

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPORBK	BOFLAP	REFERENCE INFORMATION
(B02001)	04528 826C961547F8 V116E28V85X10	.000	.285	25.000	-12.000	SREF 4.4119 SQ.FT.
(B02073)	04528 826C961547F8 V116E28V85X10	.000	.285	.000	-12.000	LREF 19.2299 INCHES
(B02077)	04528 826C961547F8 V116E28V85X10	.000	.285	.000	-12.000	BREF 37.9359 INCHES
						XTRP 43.5974 INCHES
						YTRP .0000 INCHES
						ZTRP 15.1875 INCHES
						SCALE .0405

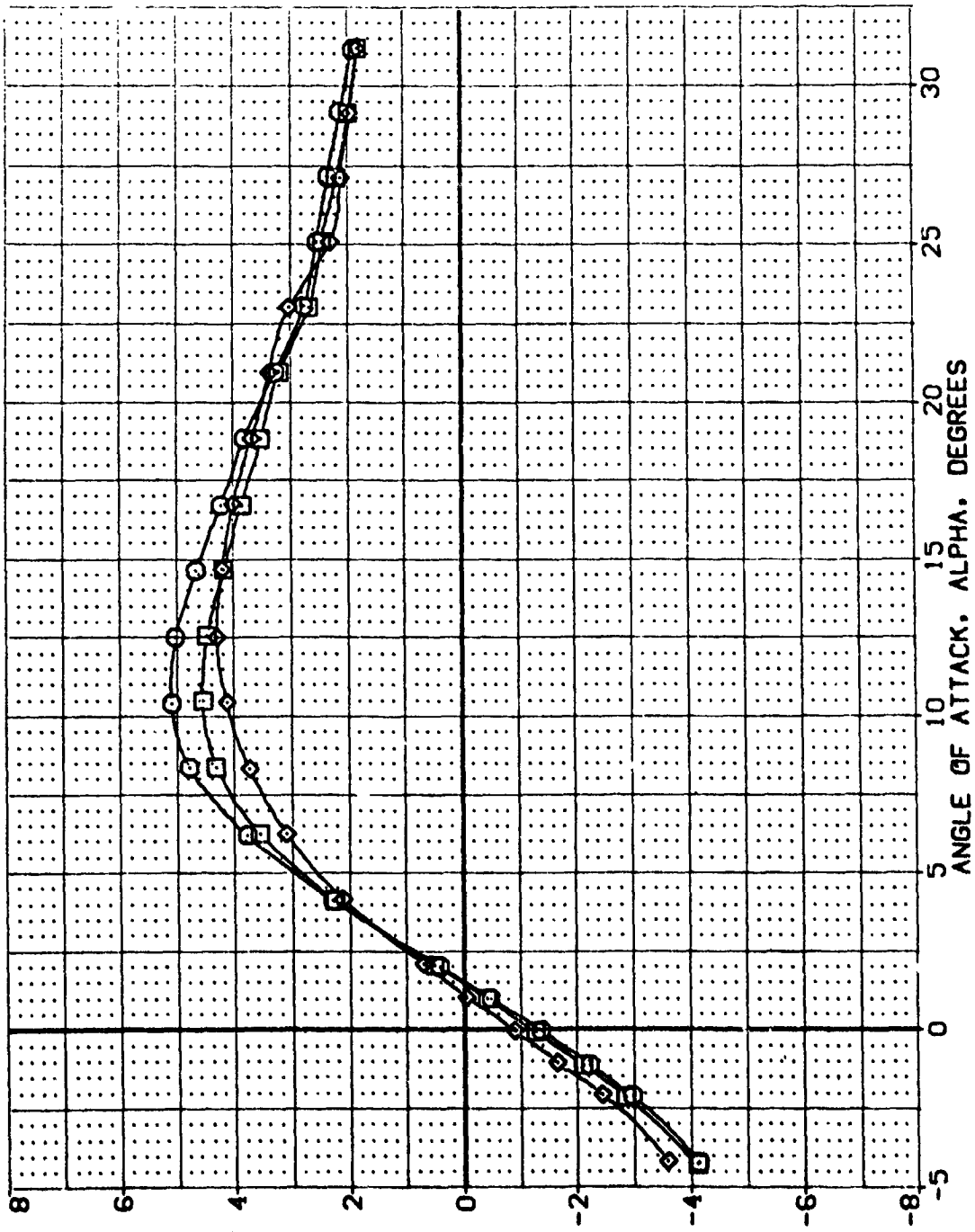


FIG 30 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .285 ELEVON = 0  
 (A)MACH = .20



DATA SET SYMB. CONFIGURATION DESCRIPTION  
 (B02021) 04528 B26C9G15HTF8 V16E28V8FSX9  
 (B02022) 04528 B26C9G15HTF8V16E28V8FSX10

ELEVON W/BW SPOBRK BOFLAP REFERENCE INFORMATION  
 .000 .125 25.000 -12.000 SREF 4.4119 SQ.FT.  
 .000 .125 .000 -12.000 LREF 19.2298 INCHES  
 XMRP 43.9359 INCHES  
 YMRP 43.5974 INCHES  
 ZMRP .0000 INCHES  
 SCALE 15.1875 INCHES  
 .0405 SCALE

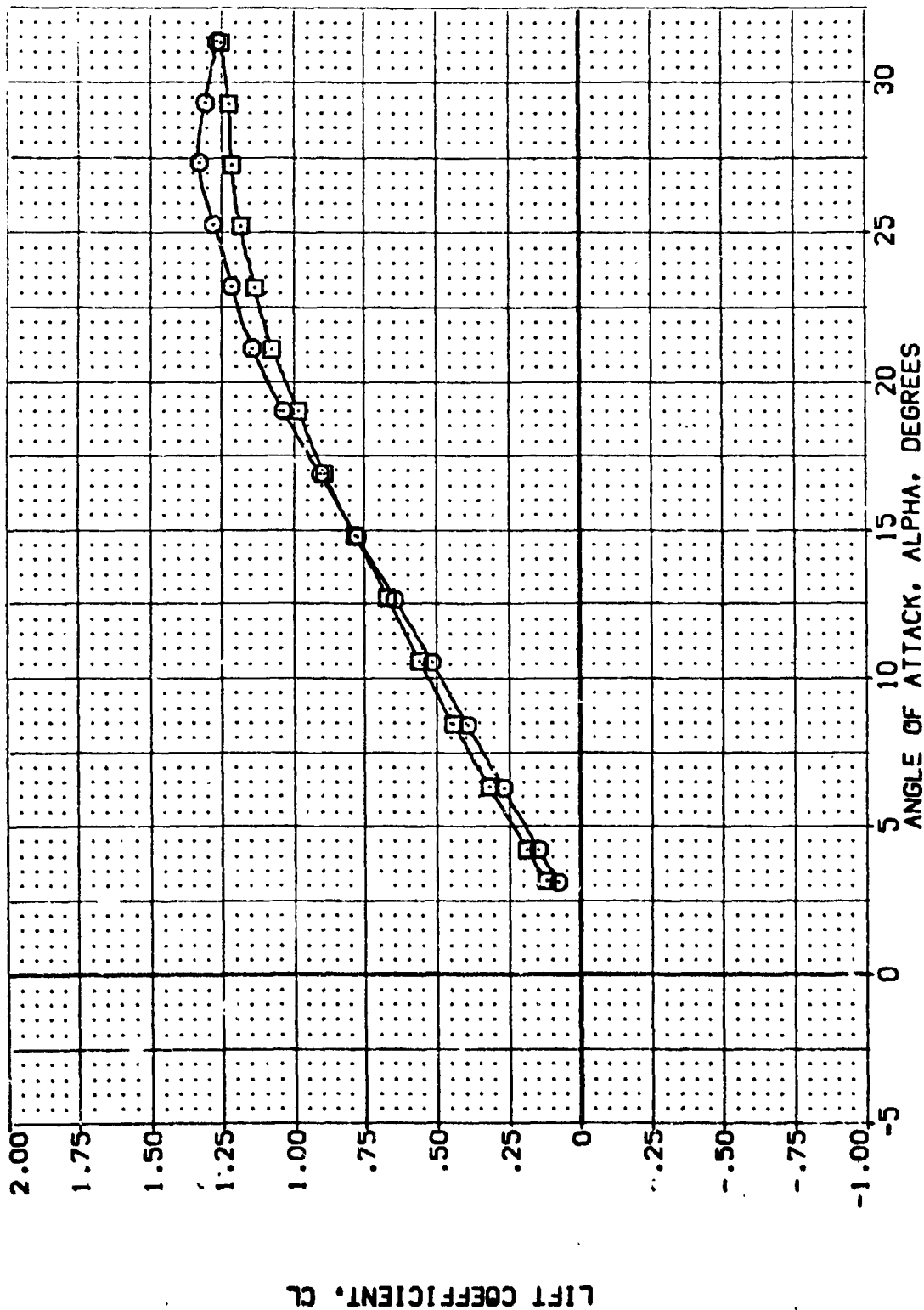


FIG 31 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .125 ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(802021) 8 04528 826C5G1547F8 V116E28V8RSK9  
 (802070) 8 04628 826C5G1547F843W116E28V8RSK10

ELEVON H/BW SPDRK BOFLAP

.000 .125 25.000 -12.000  
 .000 .125 .000 -12.000

REFERENCE INFORMATION

SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 YMRP 43.5974 INCHES  
 ZMRP .0000 INCHES  
 SCALE 15.1875 INCHES  
 .0405

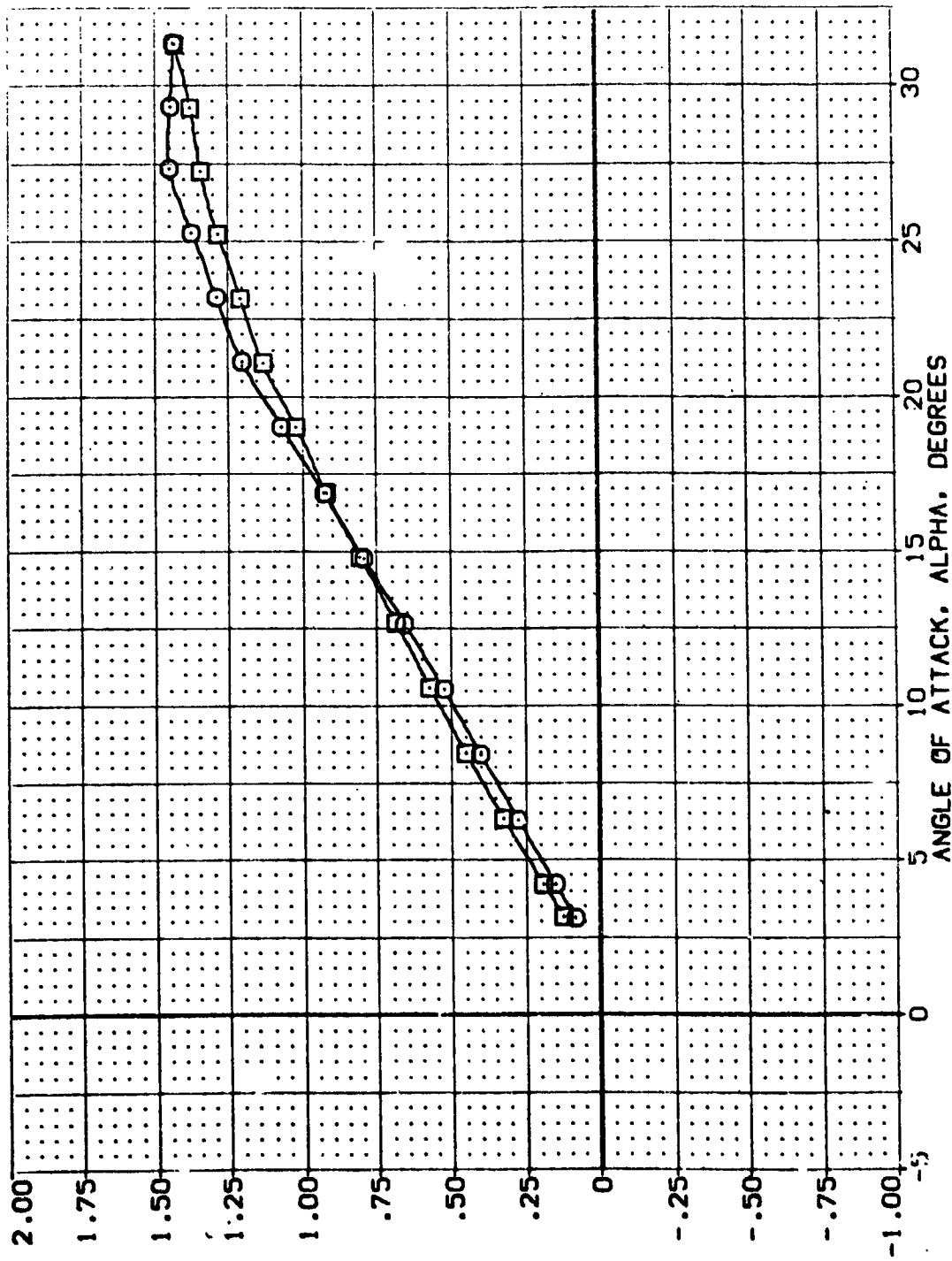


FIG 31 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .125 ELEVON = 0  
 (A)MACH = .20



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(1802021) 0A528 B26C3G15M78 V116E28V8RSX9  
(1802070) 0A528 B26C3G15M78 3J43M116E28V8RSX10

ELEVON H/BW SPOBRK BDFLAP REFERENCE INFORMATION  
.000 .125 25.000 -12.000 SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP 0.000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405 SCALE

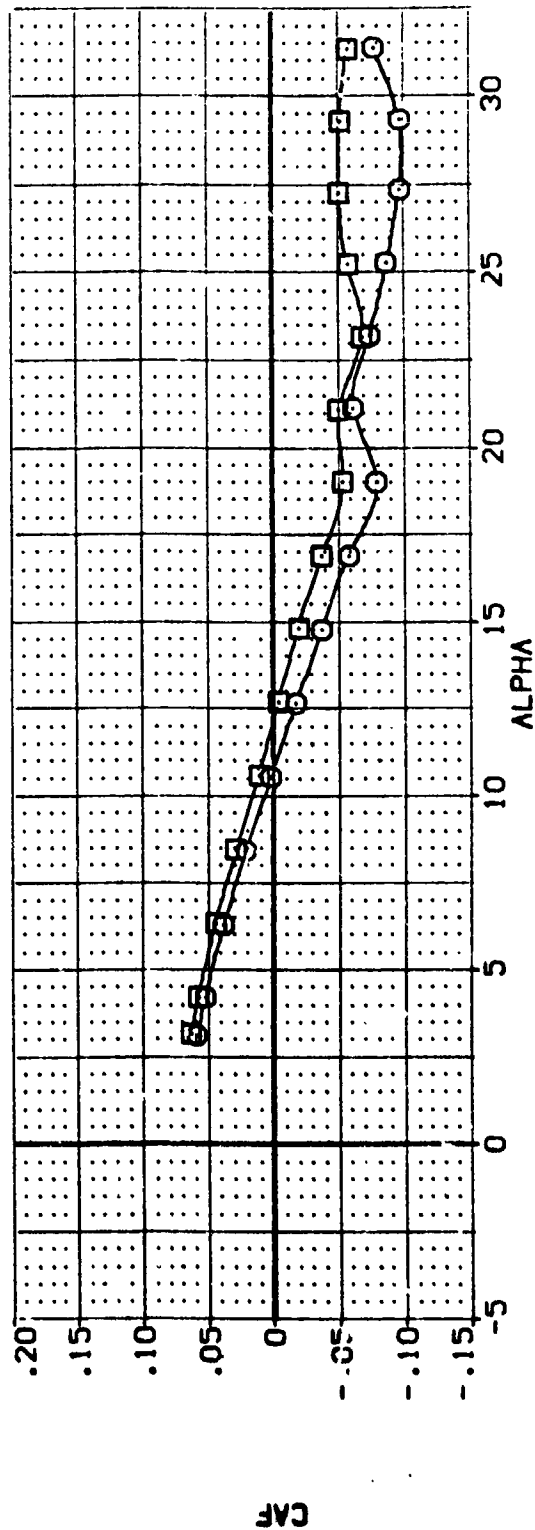
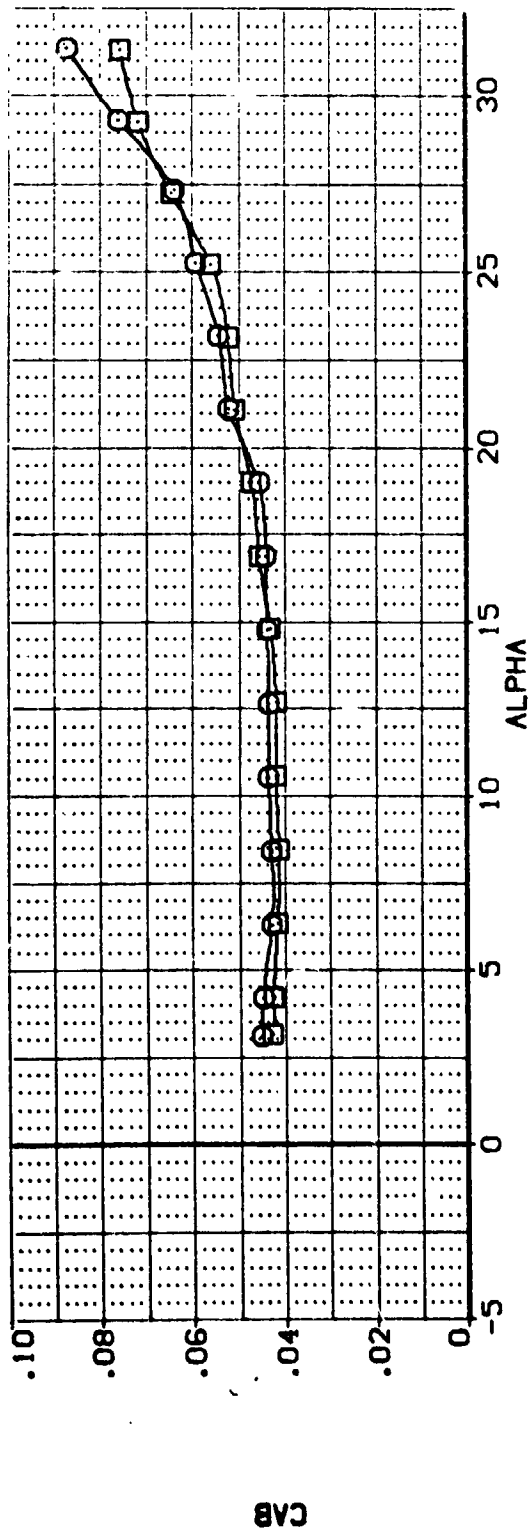


FIG 31 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .125 ELEVON = 0  
CA/MACH = .20 PAGE 327



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802021)	802021 826C9G15H7E8 V116E28V85X9	.000	.125	.25.000	-12.000	SREF 19.4119 INCHES
(802070)	802070 826C9G15H7E8 V116E28V85X10	.000	.125	.25.000	-12.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

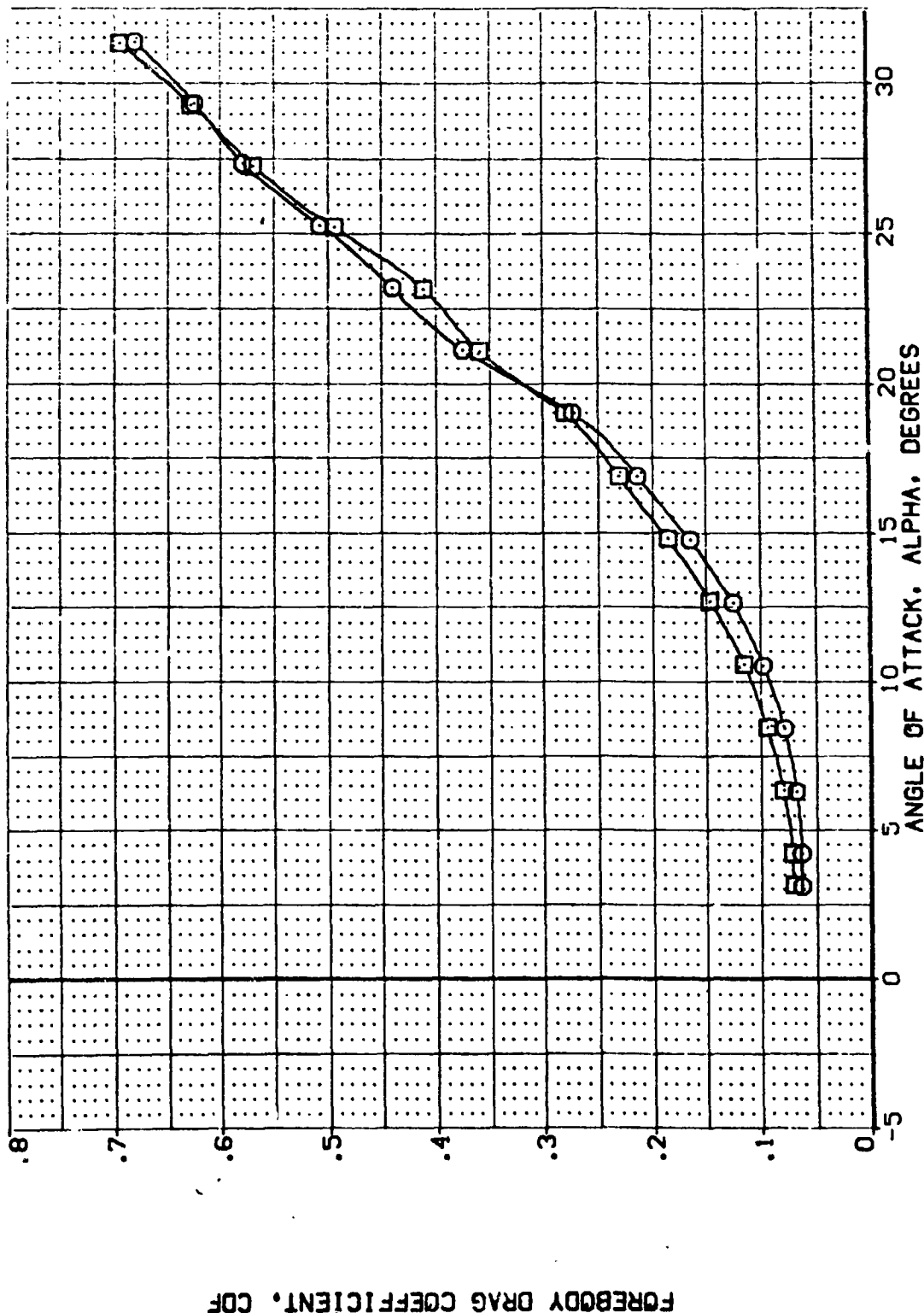
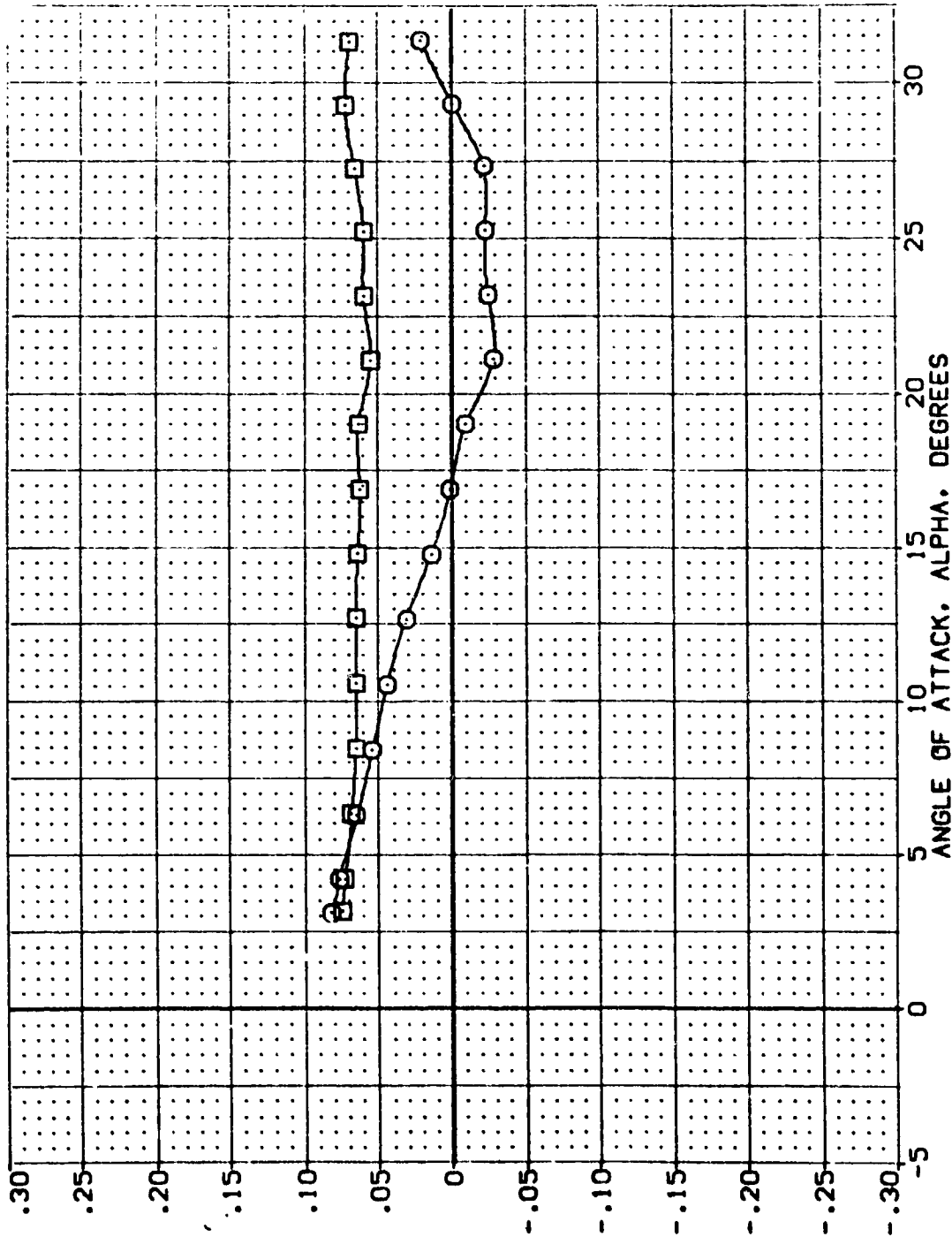


FIG 31 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .125 ELEVON = 0  
(A)MACH = .20

1.4

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
(802021)	0A628 826C9G15MTF8 V116E28V85X9	.000	.125	25.000	-12.000	SREF 4.4119 50.17
(802070)	0A628 826C9G15MTF8J43V116E28V85X10	.000	.125	.000	-12.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1675 INCHES
						SCALE .0405 SCALE



PITCHING MOMENT COEFFICIENT, CLM

FIG 31 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .125 ELEVON = 0  
(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02021) 04628 826C9G15M7F6 V116E28V8RSX19  
 (B02070) 04628 826C9G15M7F6J43V116E28V8RSX10

ELEVON H/BW SPDRBK BOFLAP REFERENCE INFORMATION  
 .000 .125 25.000 -12.000 SREF 4.4119 SO.FT.  
 .000 .125 .000 -12.000 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 YMRP 43.5974 INCHES  
 ZMRP .0000 INCHES  
 SCALE 15.1875 INCHES  
 .0405 SCALE

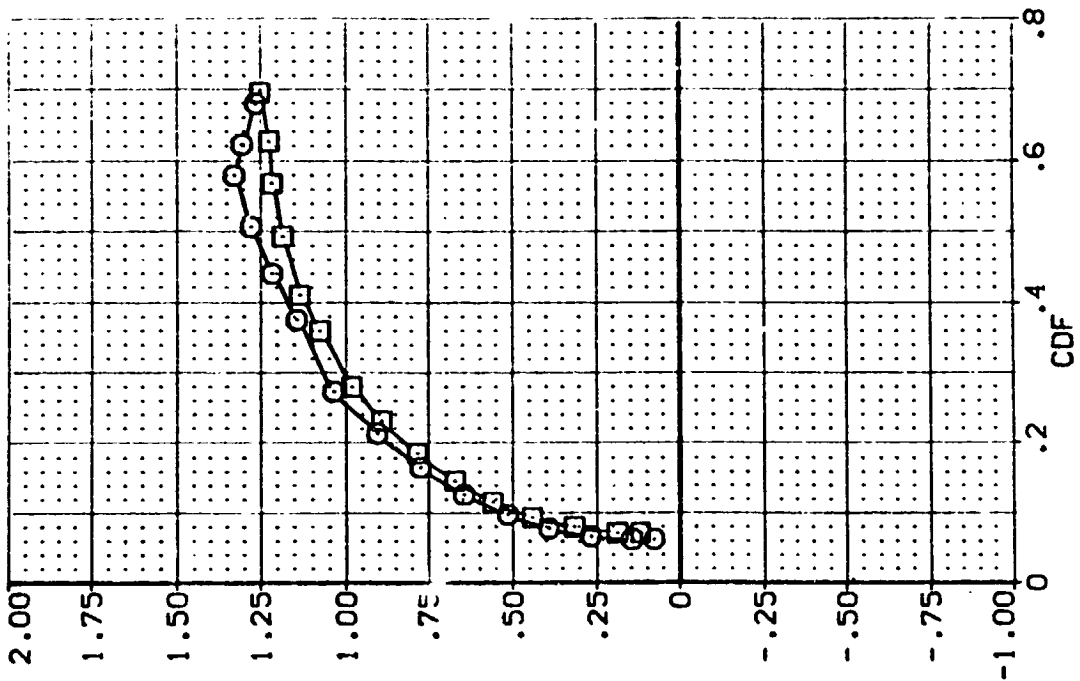
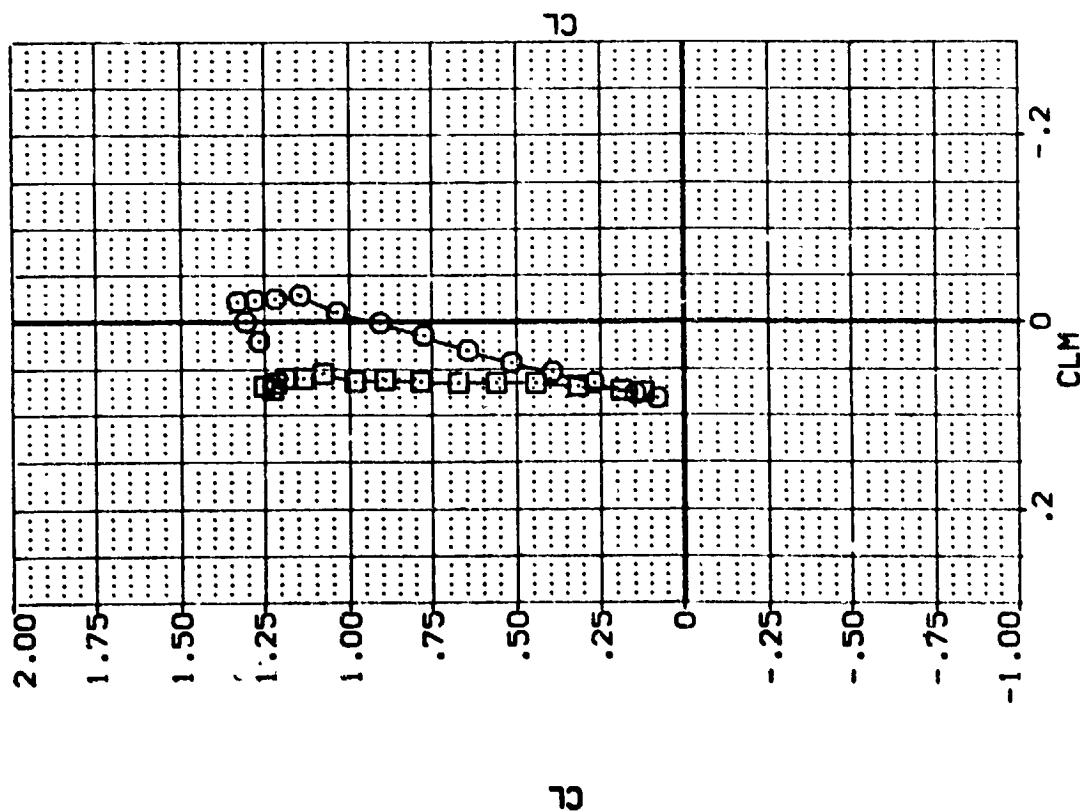


FIG 31 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .125 ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    H/BW    SPDRK    BOFLAP    REFERENCE INFORMATION

(802021)	0A628 B26C5G1547F8 V116E28V8RSX9	.000	.125	25.000	-12.000	SREF	4.4119	SO.FT
(802070)	0A628 B26C5G1547F843V116E28V8RSX10	.000	.125	.000	-12.000	LREF	19.2298	INCHES
						BREF	37.9359	INCHES
						XMRP	43.5974	INCHES
						YMRP	.0000	INCHES
						ZMRP	15.1875	INCHES
						SCALE	.0405	SCALE

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

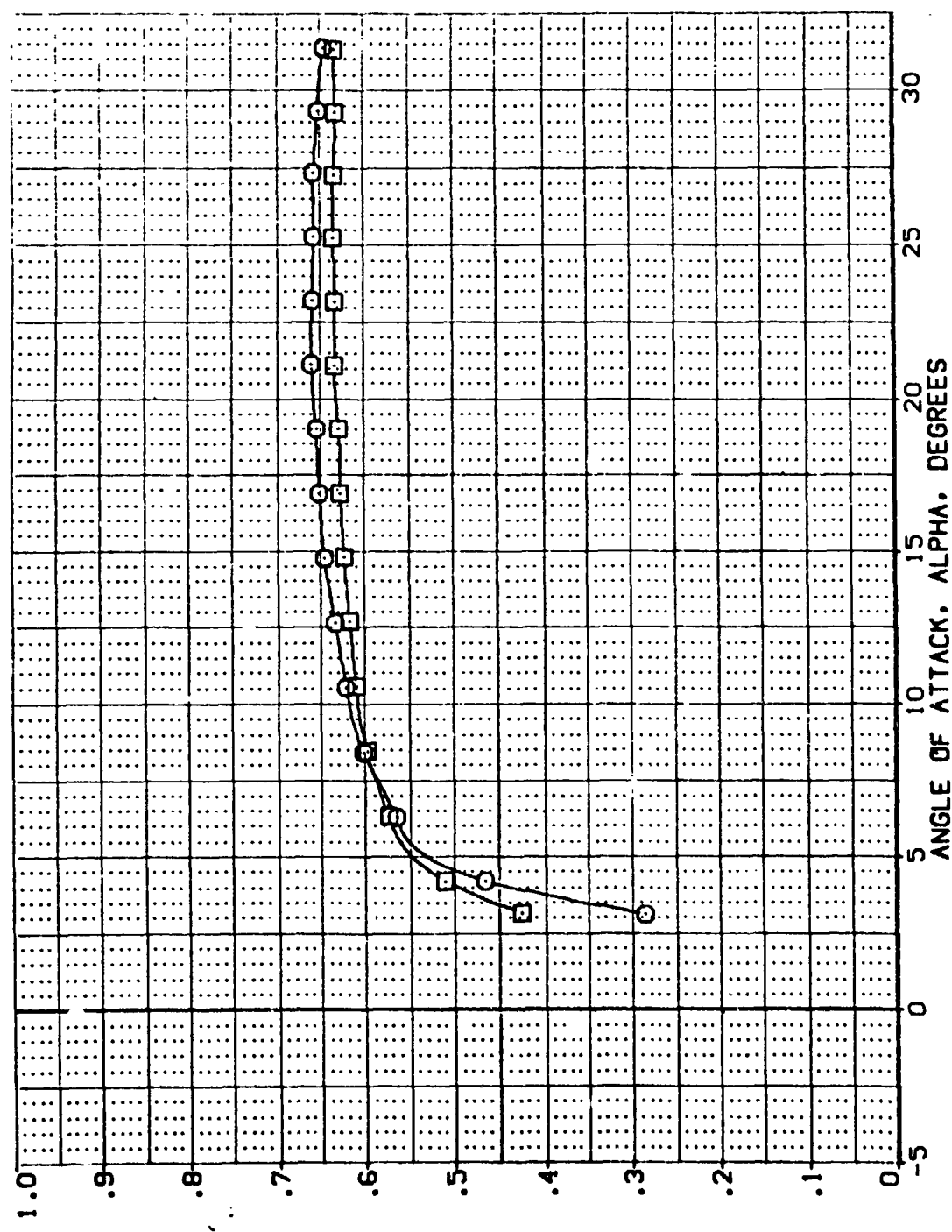
































FIG 31 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .125 ELEVON = 0  
(A)MACH = .20      PAGE 331

DATA SET SYMBOL: (802021) (802070)                               

CONFIGURATION DESCRIPTION: 84528 826C91547F8 V116E28V8R5X10  
 84528 826C91547F8J43V116E28V8R5X10

ELEVON H/BW SPDRK BOFLAP  
 .000 .125 25.000 -12.000  
 .000 .125 .000 -12.000

REFERENCE INFORMATION: SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP 15.0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

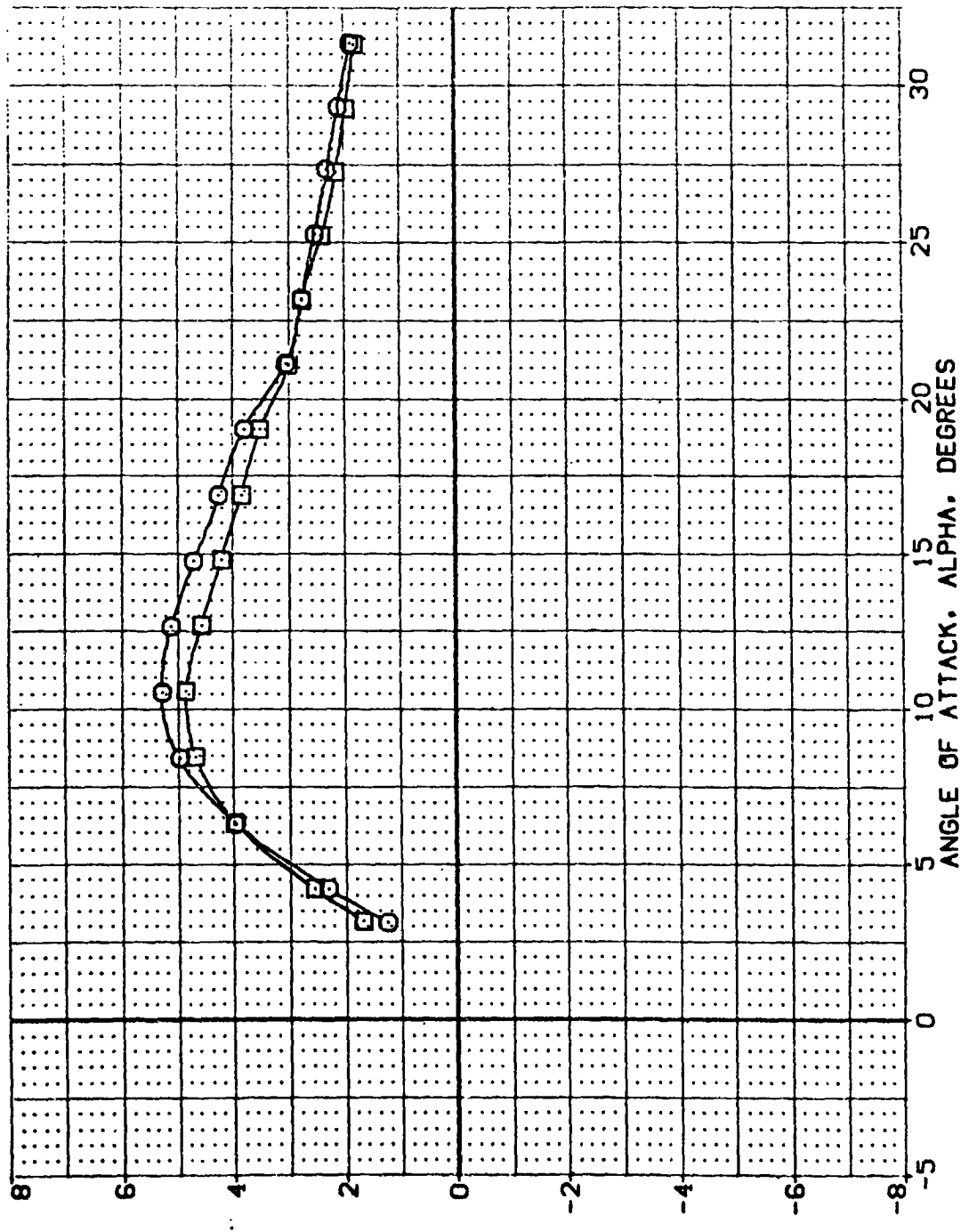


FIG 31 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .125 ELEVON = 0  
 (A)MACH = .20





DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(802049) 8 0A628 B26C5G1547F8 V115E28V85X9  
(802063) 8 0A628 B26C5G1547F8 V115E28V85X10

ELEVON H/BW SPOBRK BDFLAP REFERENCE INFORMATION  
.000 .035 25.000 -12.000 SREF 4.4119 SO.FT.  
.000 .035 .000 -12.000 LREF 19.2299 INCHES  
XMRP 43.9359 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405 INCHES

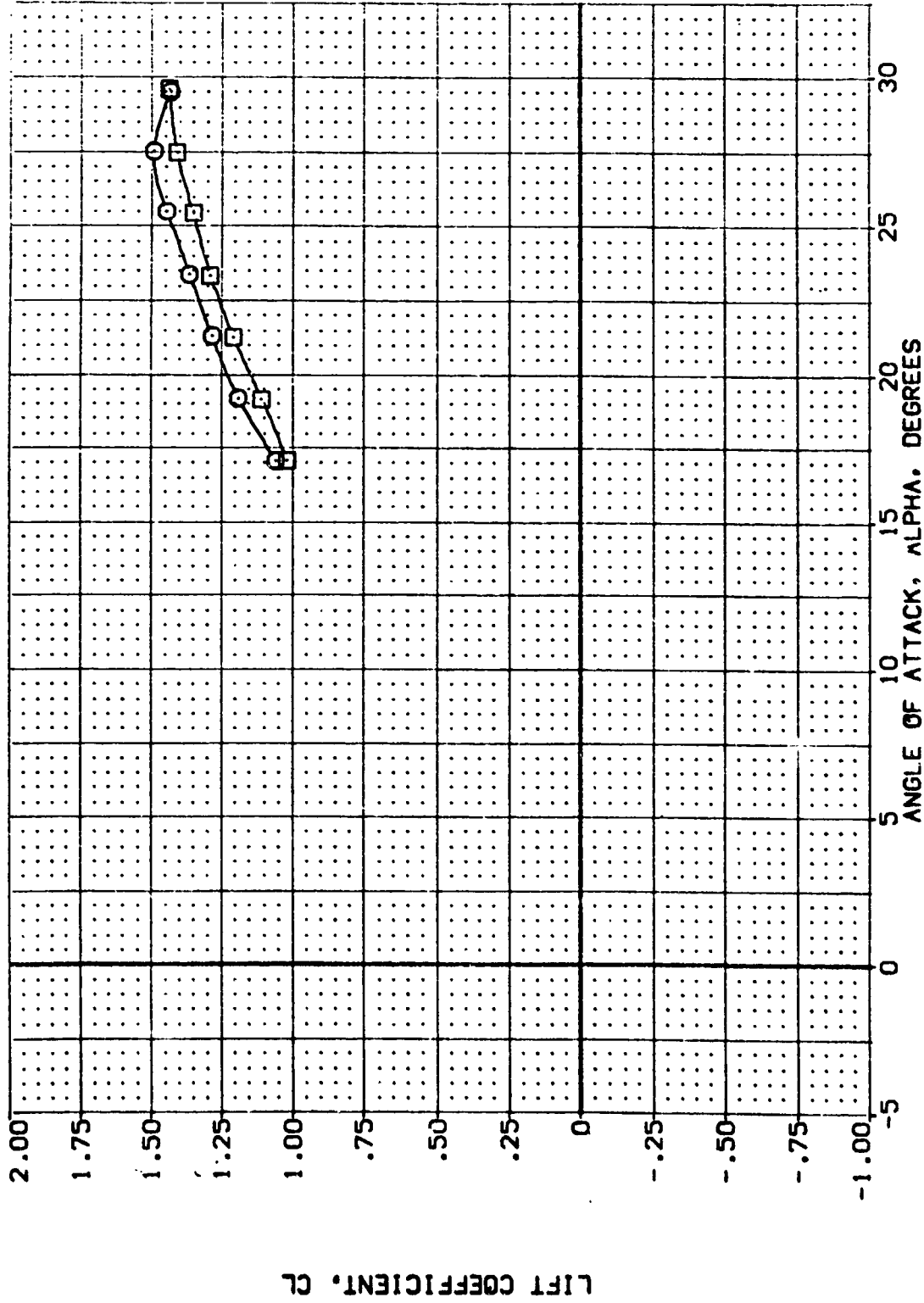


FIG 32 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .035 ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02049) 0A628 B26C5G15H7F8 V116E28V85X9  
 (B02063) 0A628 B26C5G15H7F8J43V116E28V85X10

ELEVON H/BW SPOBRK BDFLAP REFERENCE INFORMATION  
 .000 .035 25.000 -12.000 SREF 4.4119 50.FT.  
 .000 .035 .000 -12.000 LREF 19.2299 INCHES  
 BREF 37.9399 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 INCHES

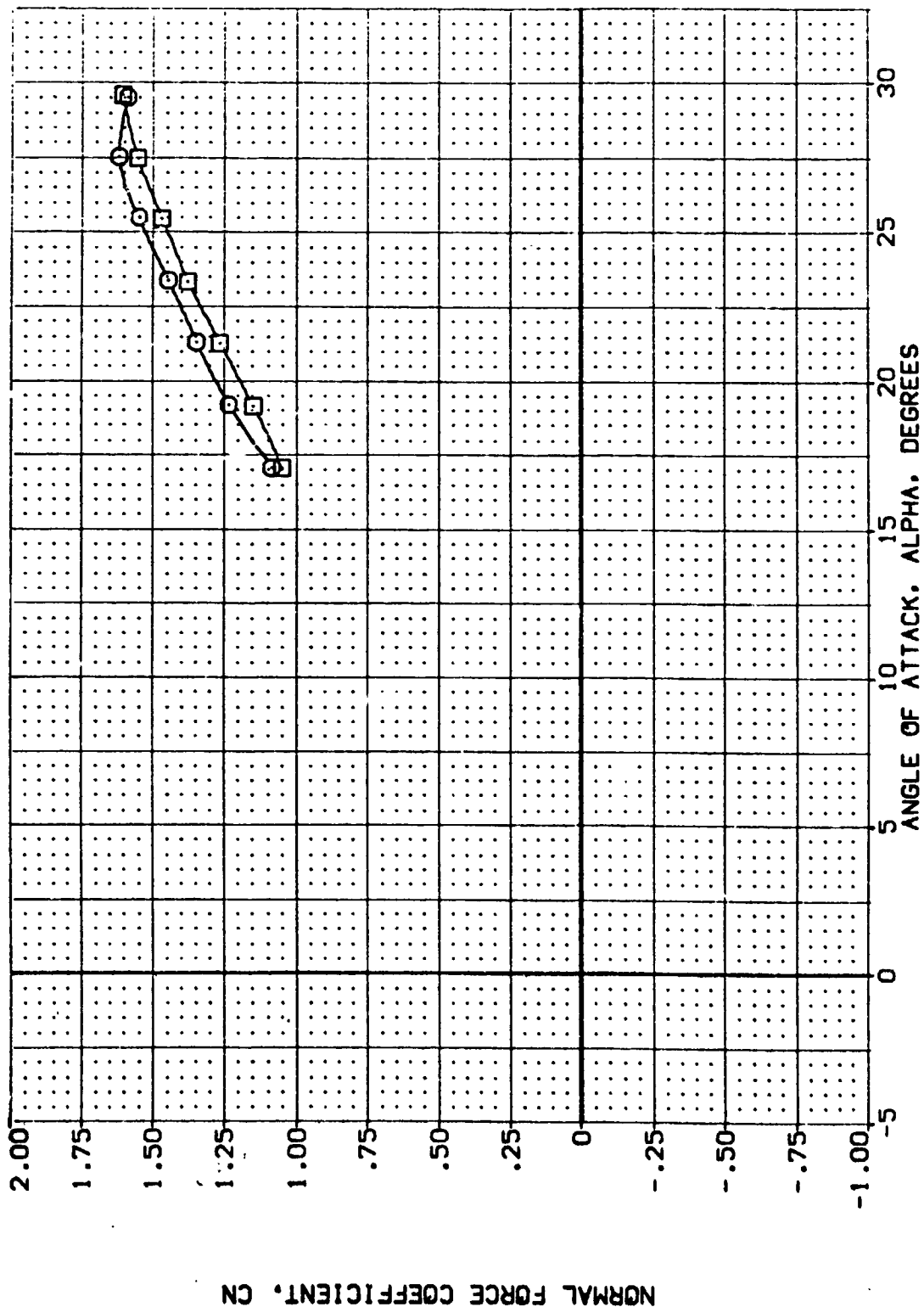


FIG 32 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .035 ELEVON = 0

CAMACH = .20

DATA SET SYMBOL: (B02049) (B02063) CONFIGURATION DESCRIPTION: QAS28 B26C9G15M7F8 V116E28V8RSX9 QAS28 B26C9G15M7F8J43V116E28V8RSX10

CLEVEN	H/BW	SPDRK	BOFLAP	REFERENCE INFORMATION
.000	.035	25.000	-12.000	SREF 4.4119 SQ.FT.
.000	.035	.000	-12.000	LREF 19.2299 INCHES
				BREF 37.9359 INCHES
				XMRP 43.5974 INCHES
				YMRP .0000 INCHES
				ZMRP 15.1875 INCHES
				SCALE .0405

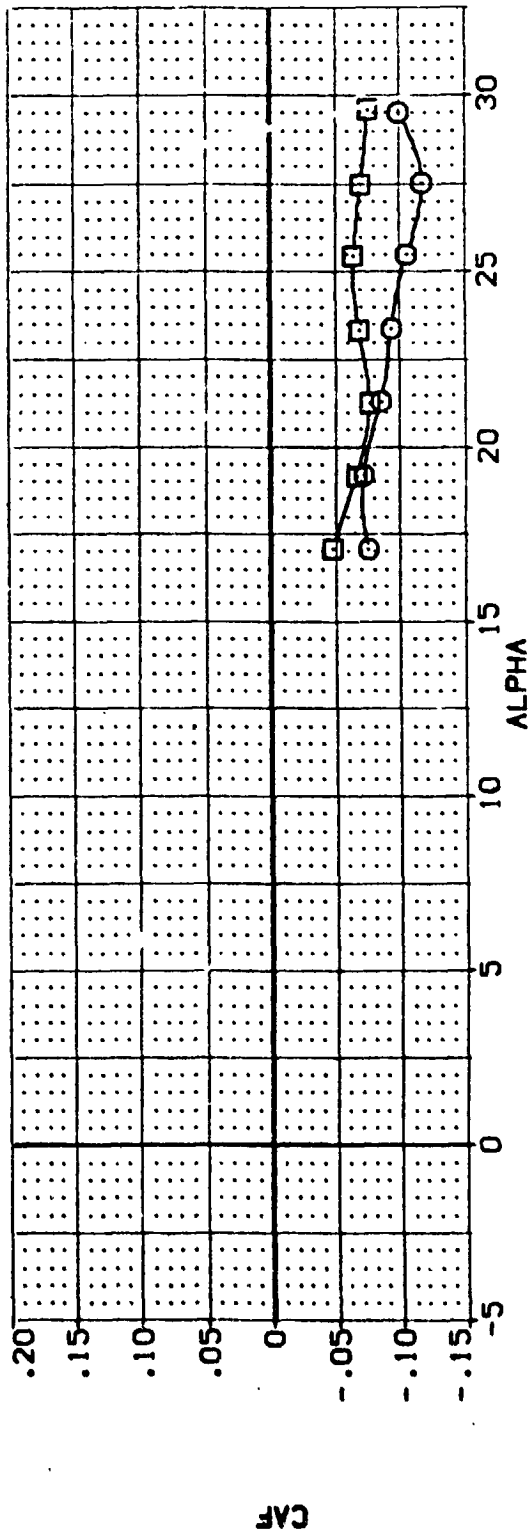
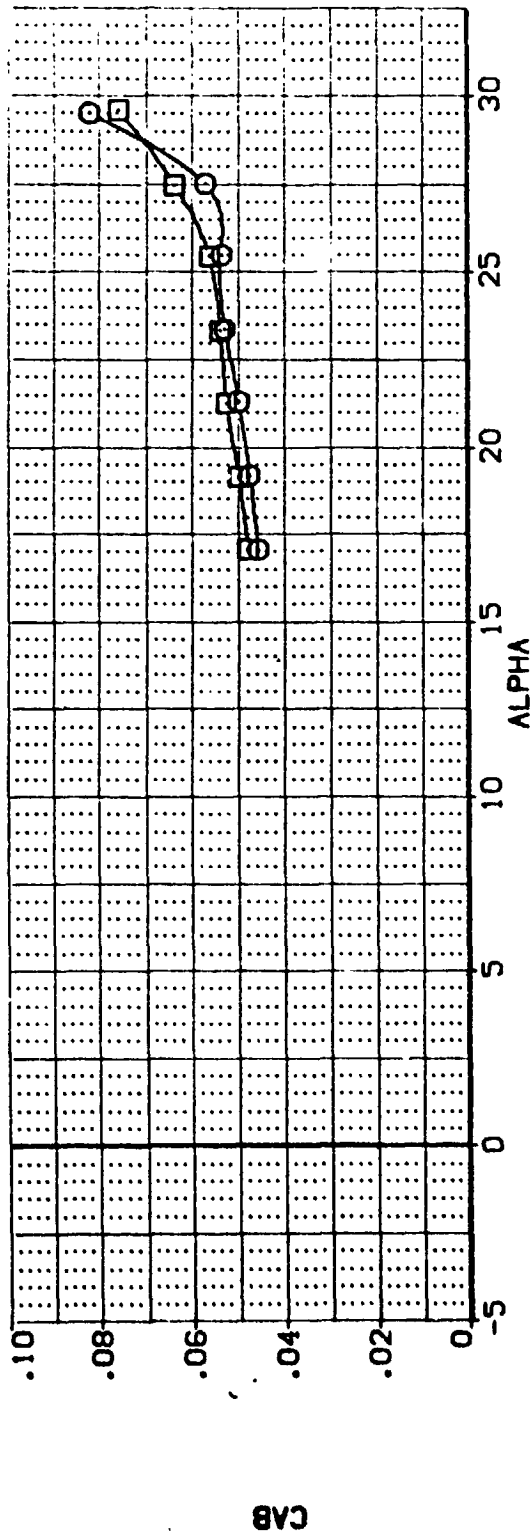


FIG 32 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .035 ELEVON = 0  
CA/MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(BDZ049) 01628 826C9G15M7F8 V116E28V85X9

(BDZ063) 01628 826C9G15M7F8J43V116E28V85X10

ELEVON H/BW SPOBRK BOFLAP REFERENCE INFORMATION

.000 .035 25.000 -12.000 SREF 4.4119 SQ.FT.

.000 .035 .000 -12.000 LBREF 19.2299 INCHES

XBREF 37.9359 INCHES

YMRP 43.5974 INCHES

ZMRP 15.1875 INCHES

SCALE .0405

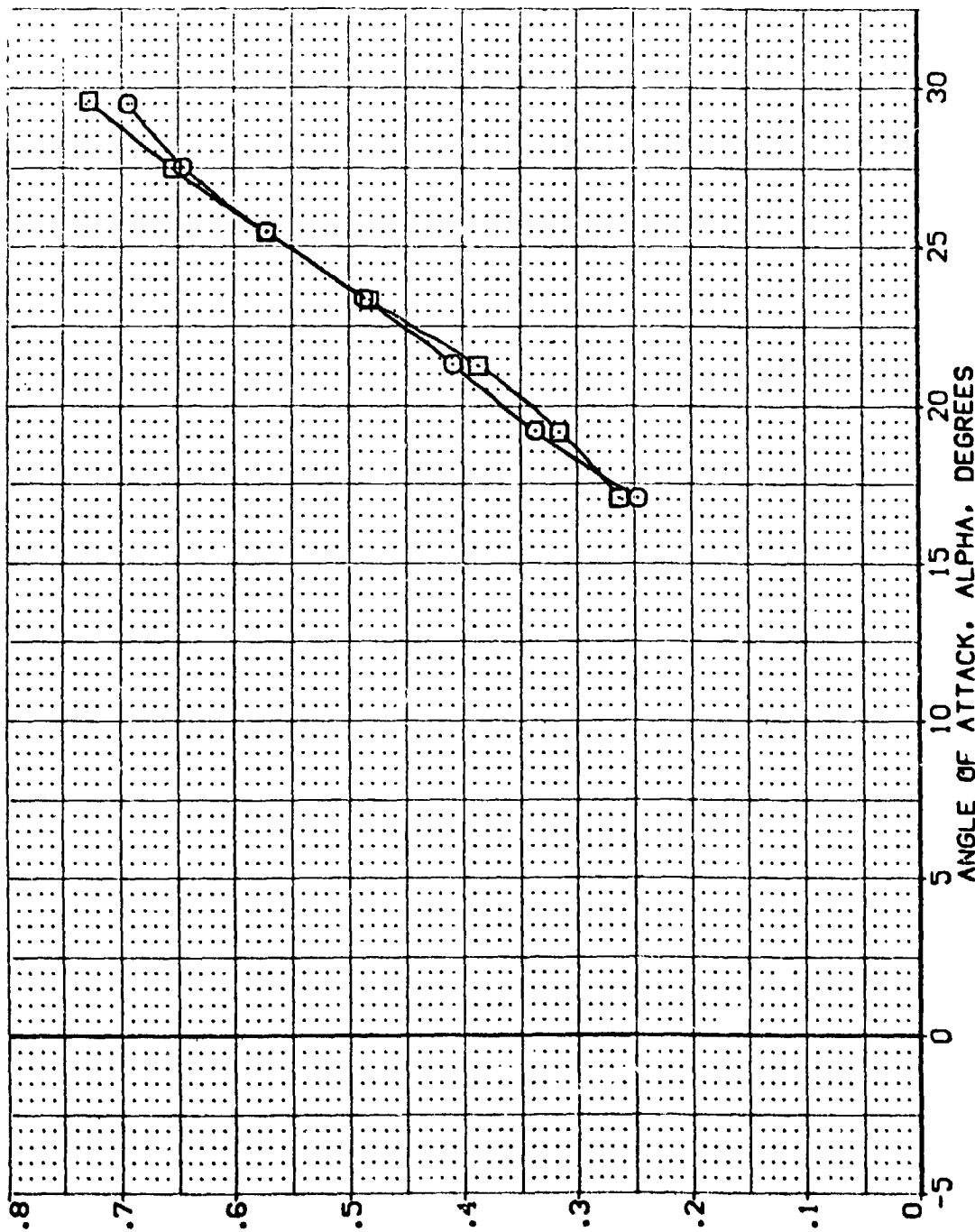


FIG 32 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .035 ELEVON = 0

(A)MACH = .20

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DATA SET SYMBOL (802049) (802063) CONFIGURATION DESCRIPTION 0A628 826C901547F8 V116E28V8R5X9 0A628 826C901547F8V116E28V8R5X10

ELEVON W/BW SPOROK BL AP REFERENCE INFORMATION SREF 4.4119 SQ.FT. LREF 19.2298 INCHES BREF 37.9559 INCHES XMRP 43.9974 INCHES YMRP .0000 INCHES ZMRP 15.1875 INCHES SCALE .0105

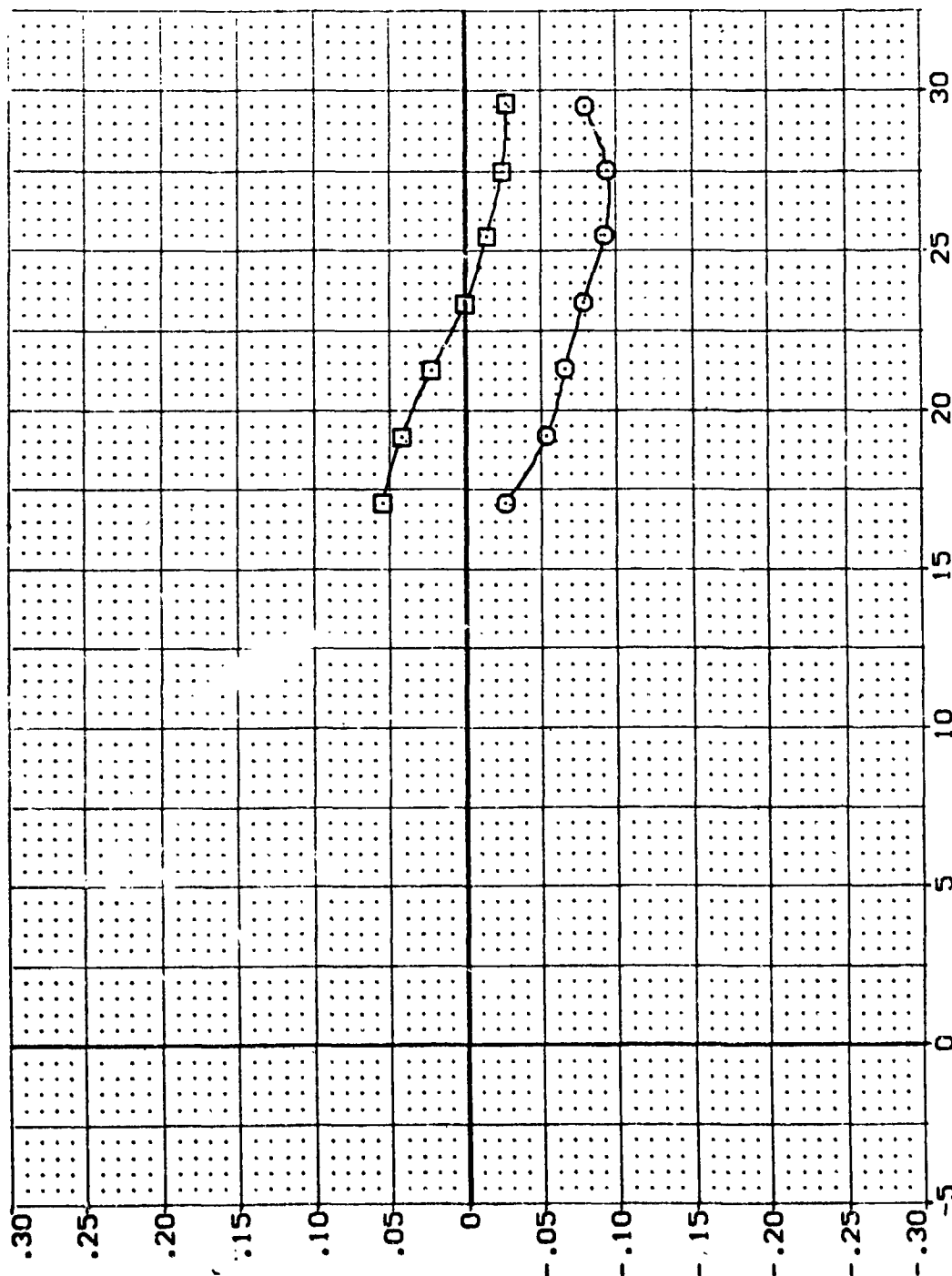


FIG 32 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .035 ELEVON = 0 (A)MACH = .20 PAGE 337

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02049) B 0A628 B26C9G15H7F8 V1:6E28V8R5X9  
 (B02063) B 0A628 B26C9G15H7F8J43W11E28V8R5X10

ELEVON H/BW SPOBRK BOFLAP REFERENCE INFORMATION  
 .000 .035 25.000 -12.000 SREF 4.4119 SQ.FT.  
 .000 .035 .000 -12.000 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

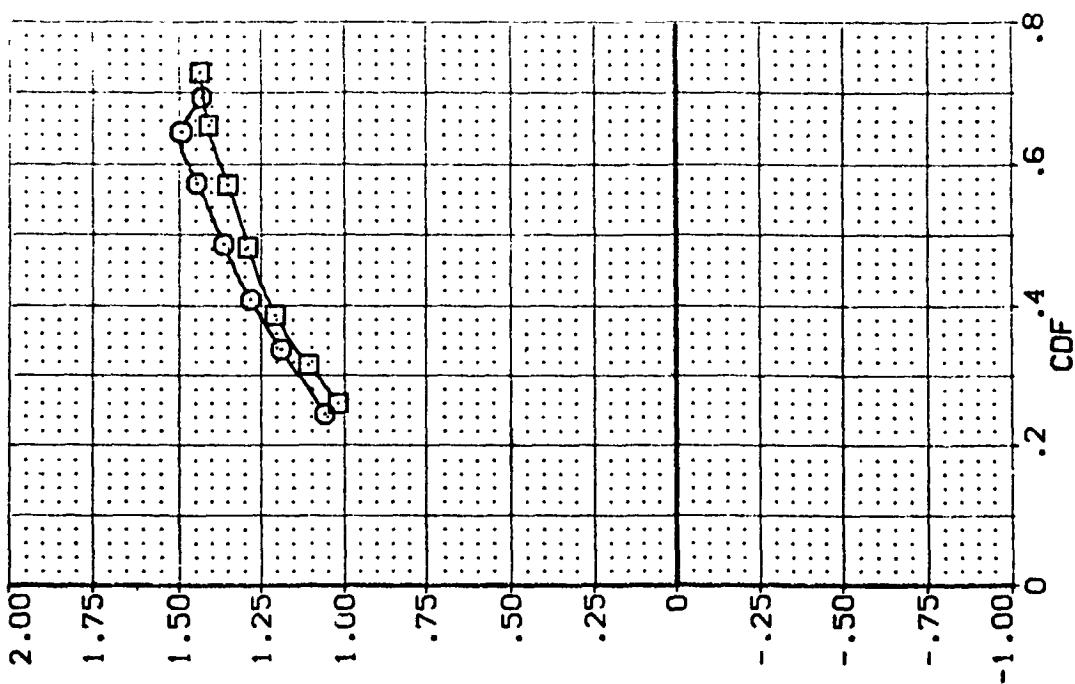
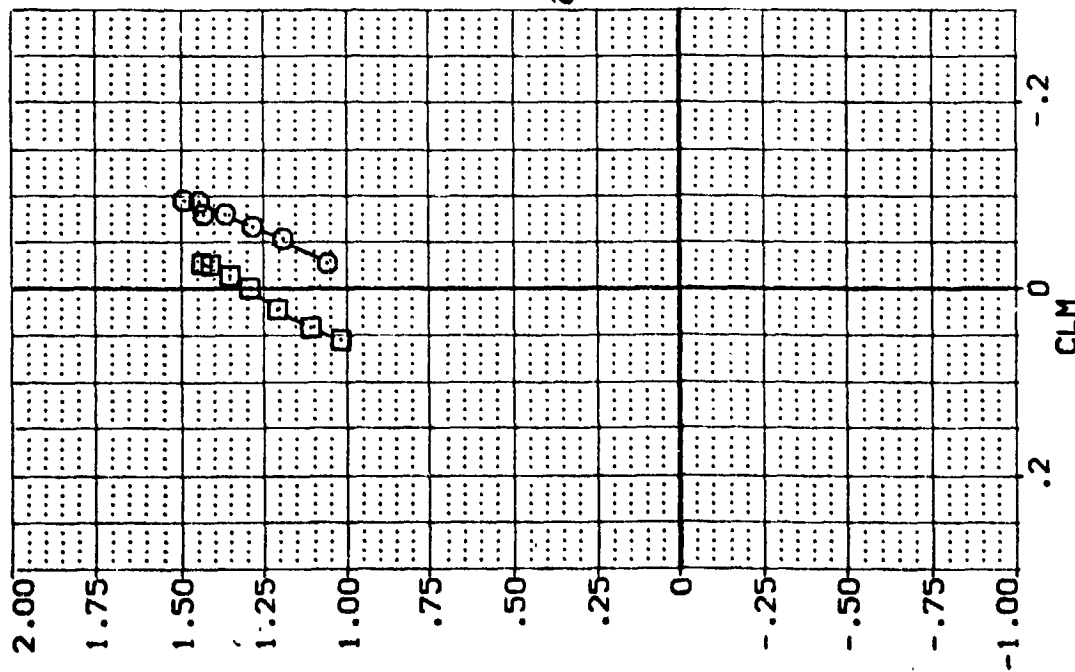


FIG 32 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .035 ELEVON = 0  
 (A) MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
04528	B26C9G15N7F8 V116E28V85X9	.000	.035	25.000	-12.000	SREF 4.4119 SQ.FT.
04528	B26C9G15N7F8V116E28V85X10	.000	.035	.000	-12.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP 10.000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

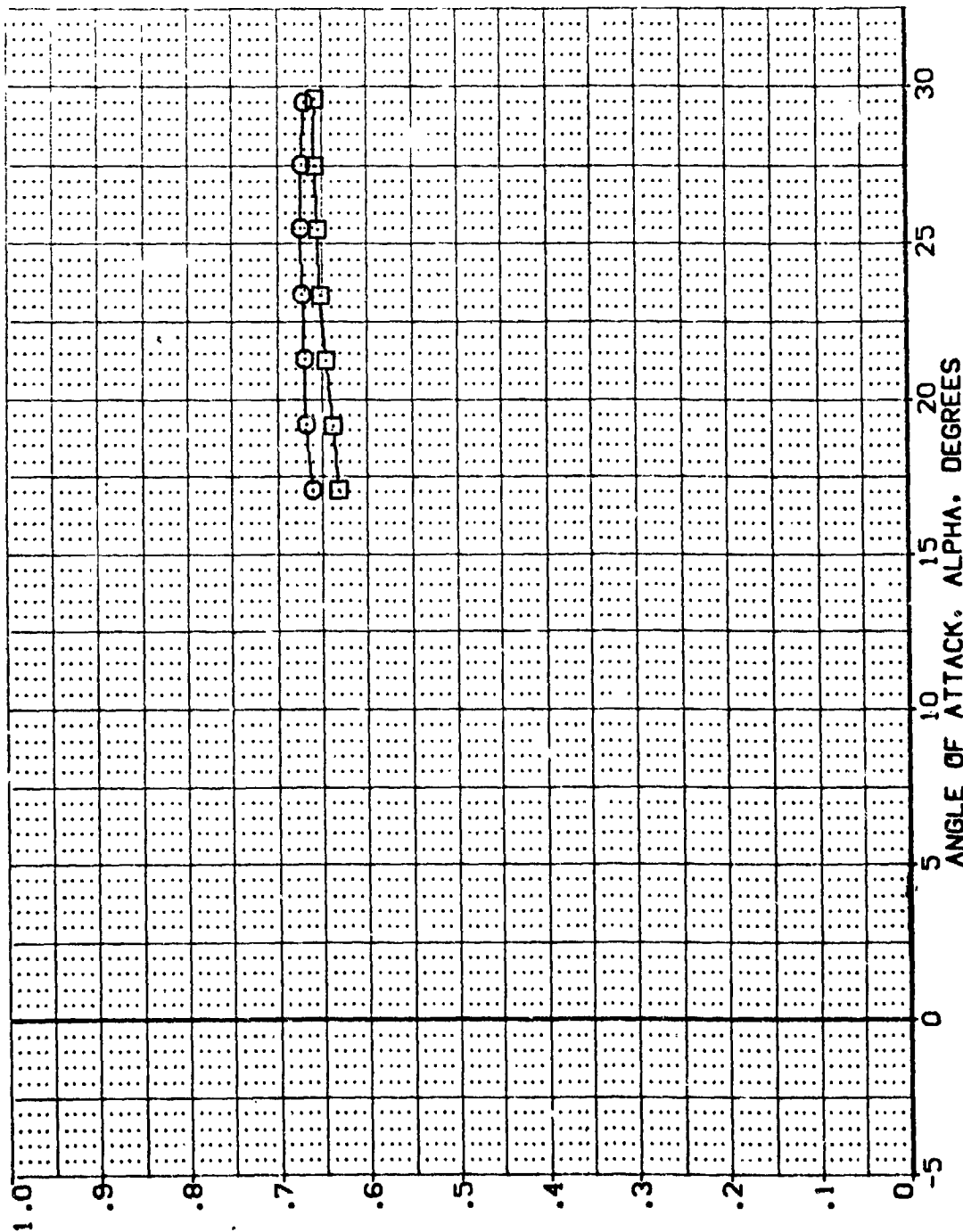


FIG 32 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .035 ELEVON = 0  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	H/BW	SPOBRK	BOFLAP	REFERENCE INFORMATION
(802049)	0A628 B26C9G15H7F8 V116E28V8R5X9	.000	.035	25.000	-12.000	SREF 4.4119 SQ.FT.
(802063)	0A628 B26C9G15H7F8J43V116E28V8R5X10	.000	.035	.000	-12.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XPRP 43.5974 INCHES
						YPRP .0000 INCHES
						ZPRP 15.1875 INCHES
						SCALE .0405

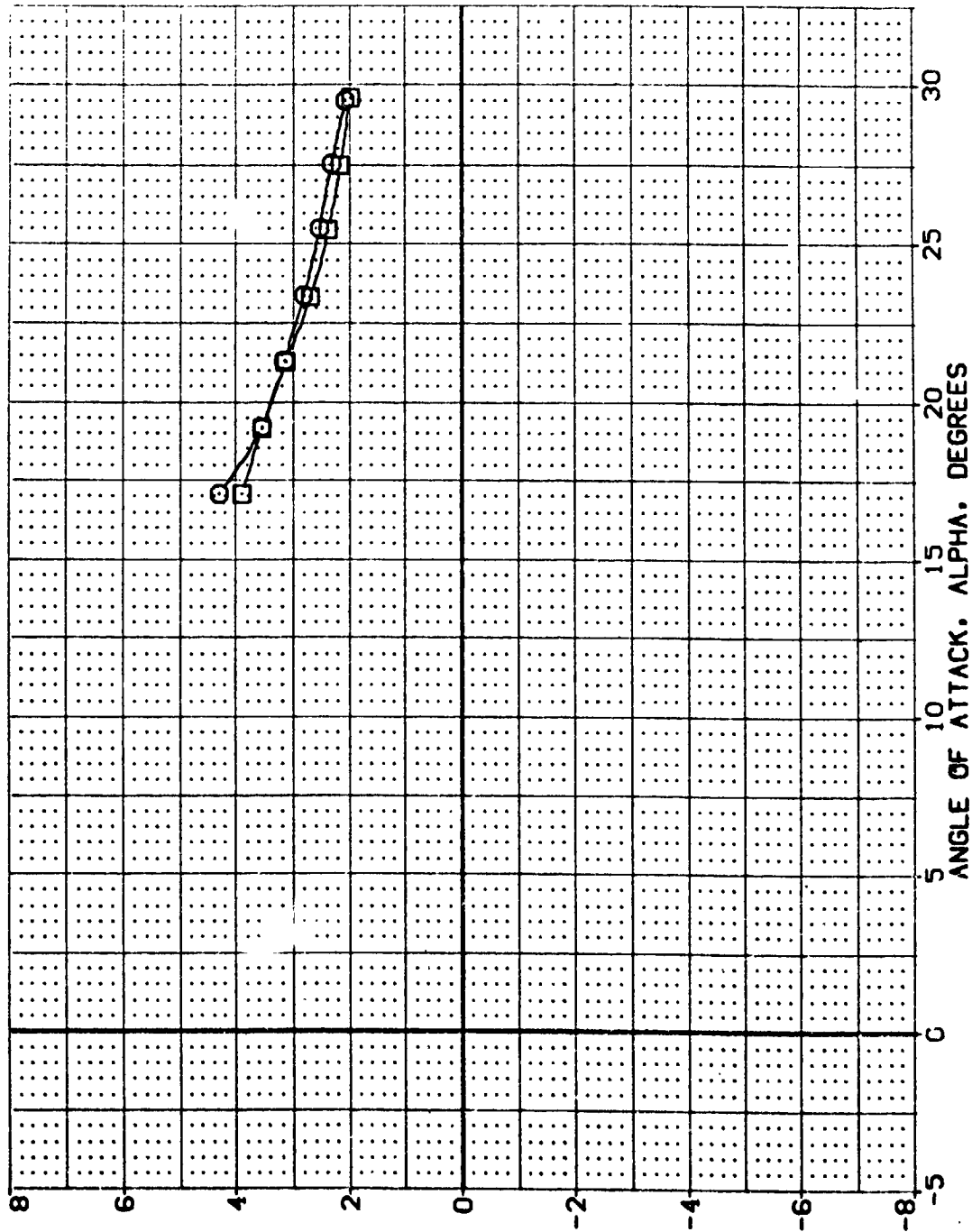


FIG 32 EFFECT OF ENGINE CONFIGURATION IN GROUND EFFECT, H/BW = .035 ELEVON = 0  
 (A)MACH = .20 PAGE 340







DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOILER	BOFLAP	RUDDER	REFERENCE INFORMATION
(802098)	0A628 826C9G154778 V116E28V8R5X9	-5.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(802099)	0A628 826C9G154778 V116E28V8R5X9	.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(802099)	0A628 826C9G154778 V116E28V8R5X9	5.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(802099)	0A628 826C9G154778 V116E28V8R5X9	10.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
(802099)	0A628 826C9G154778 V116E28V8R5X9	15.000	25.000	-12.000	.000	YMRP 15.0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

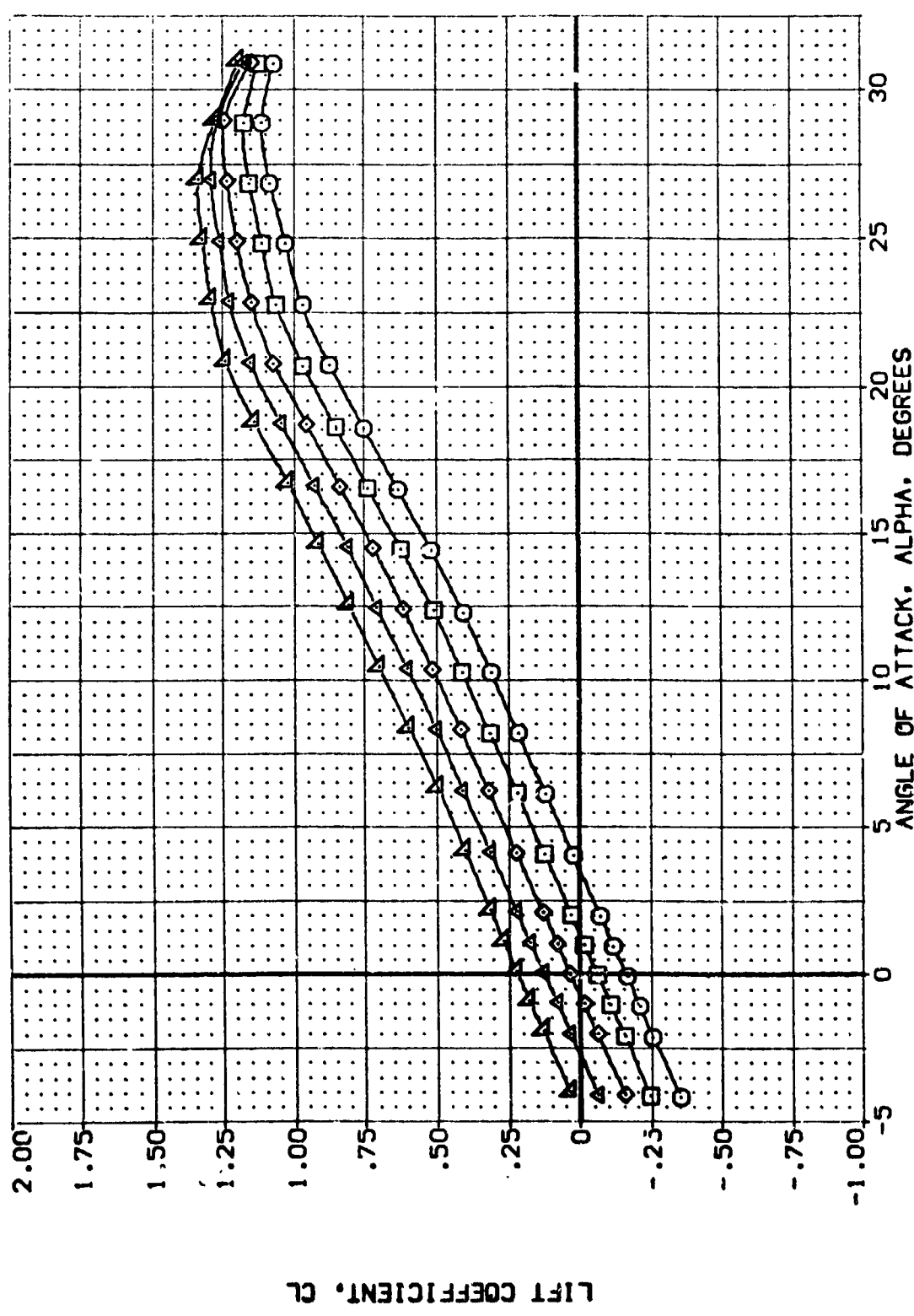


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE  
(A)MACH = .20 PAGE 341



DATA SET SYMBOL	CONF. / CURVATURE DESCRIPTION	ELEVON	SPOBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(802099)	0A628 B26C9G1547F8 V116E28V8K5X9	-5.000	25.000	-12.000	.000	SREF 4.4119 50. FT.
(802098)	0A628 B26C9G1547F8 V116E28V8K5X9	5.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(802096)	0A628 B26C9G1547F8 V116E28V8K5X9	10.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(802097)	0A628 B26C9G1547F8 V116E28V8K5X9	15.000	25.000	-12.000	.000	XPRP 43.5974 INCHES
(802098)	0A628 B26C9G1547F8 V116E28V8K5X9					YPRP .0000 INCHES
						ZPRP 15.1875 INCHES
						SCALE .0405

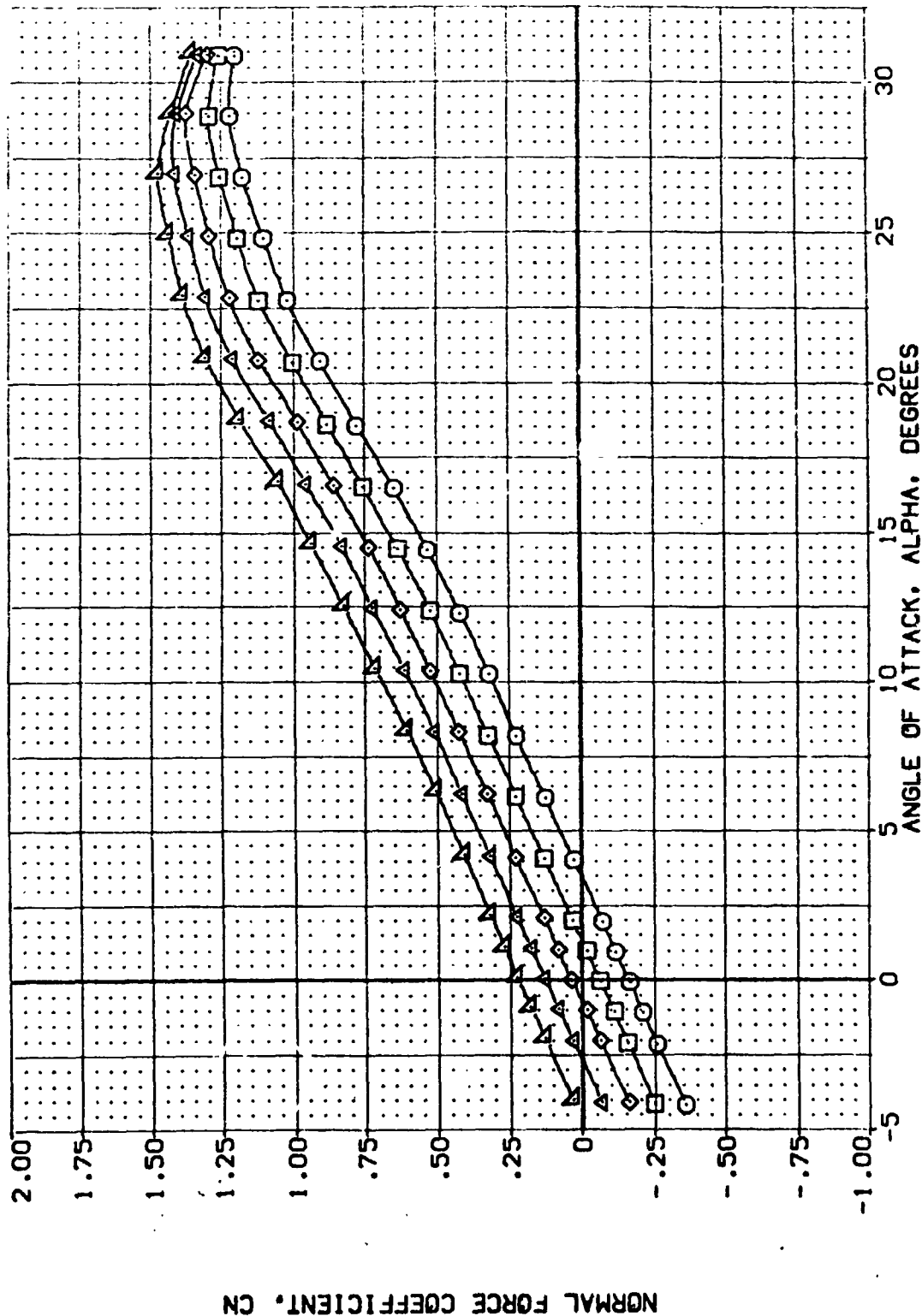


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B02099)	04628 B26C9G SHT7 8
(B02099)	04628 B26C9G SHT7 8
(B02099)	04628 B26C9G SHT7 8
(B02099)	04628 B26C9G SHT7 8
(B02099)	04628 B26C9G SHT7 8
(B02099)	04628 B26C9G SHT7 8

ELEVON	SPDRBK	BDFLAP	RUDDER	REFERENCE INFORMATION
-5.000	25.000	-12.000	.000	SREF 4.4119 SO.FT. INCHES
5.000	25.000	-12.000	.000	LREF 19.2299 INCHES
10.000	25.000	-12.000	.000	BREF 37.9359 INCHES
15.000	25.000	-12.000	.000	XREF 43.5974 INCHES
				YREF .0000 INCHES
				ZREF 15.1875 INCHES
				SCALE .0405

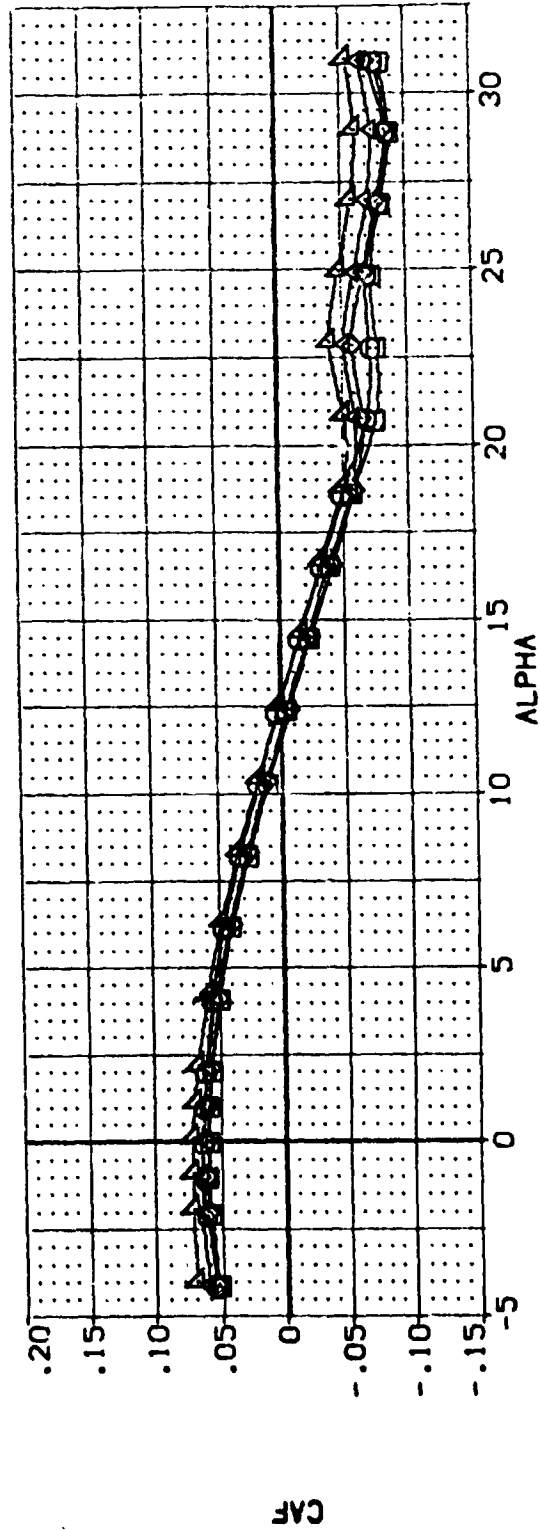
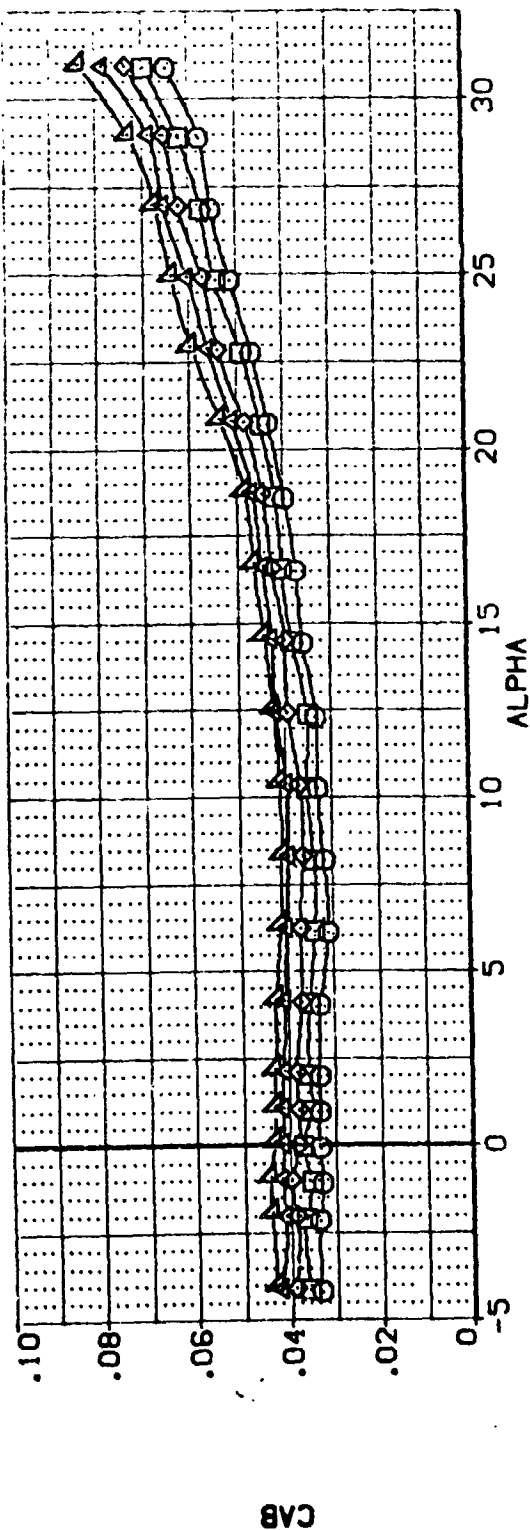


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(802099)	0A628 B26C9G 547F8 V11GE28V8R5X9	-5.000	25.000	-12.000	.000	SREF 4.4119 SO.FT
(802099)	0A628 B26C9G 547F8 V11GE28V8R5X9	5.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(802099)	0A628 B26C9G 547F8 V11GE28V8R5X9	10.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(802099)	0A628 B26C9G 547F8 V11GE28V8R5X9	15.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
						ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						.0405

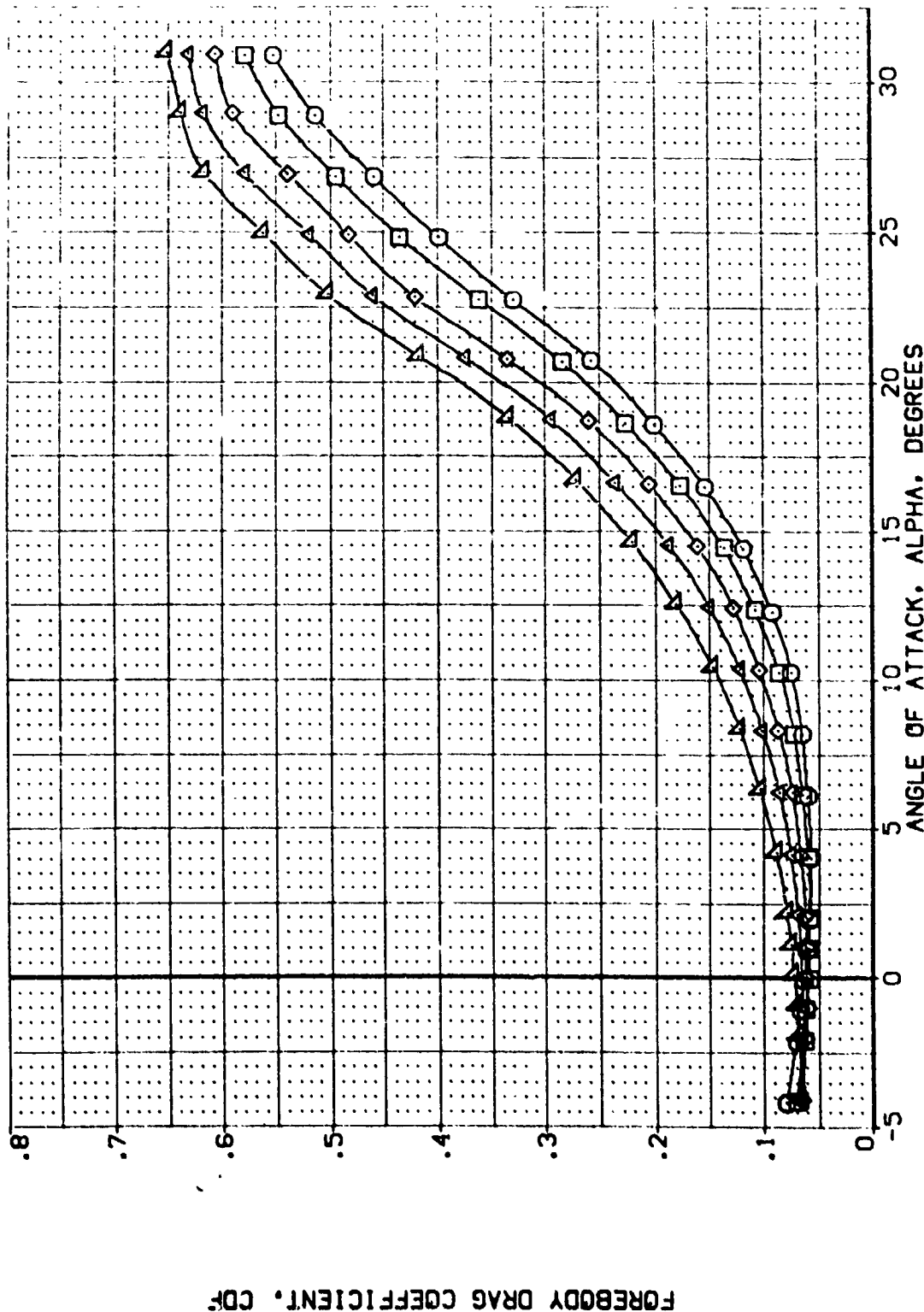


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE  
(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOON	BOFLAP	RUDDER	REFERENCE INFORMATION
(B02099)	0A628 B26C9G1547F8 V116E28V85K9	-5.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT. INCHES
(B02090)	0A628 B26C9G1547F8 V116E28V85K9	.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(B02096)	0A628 B26C9G1547F8 V116E28V85K9	5.000	25.000	-12.000	.000	BREF 37.5359 INCHES
(B02097)	0A628 B26C9G1547F8 V116E28V85K9	10.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
(B02098)	0A628 B26C9G1547F8 V116E28V85K9	15.000	25.000	-12.000	.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

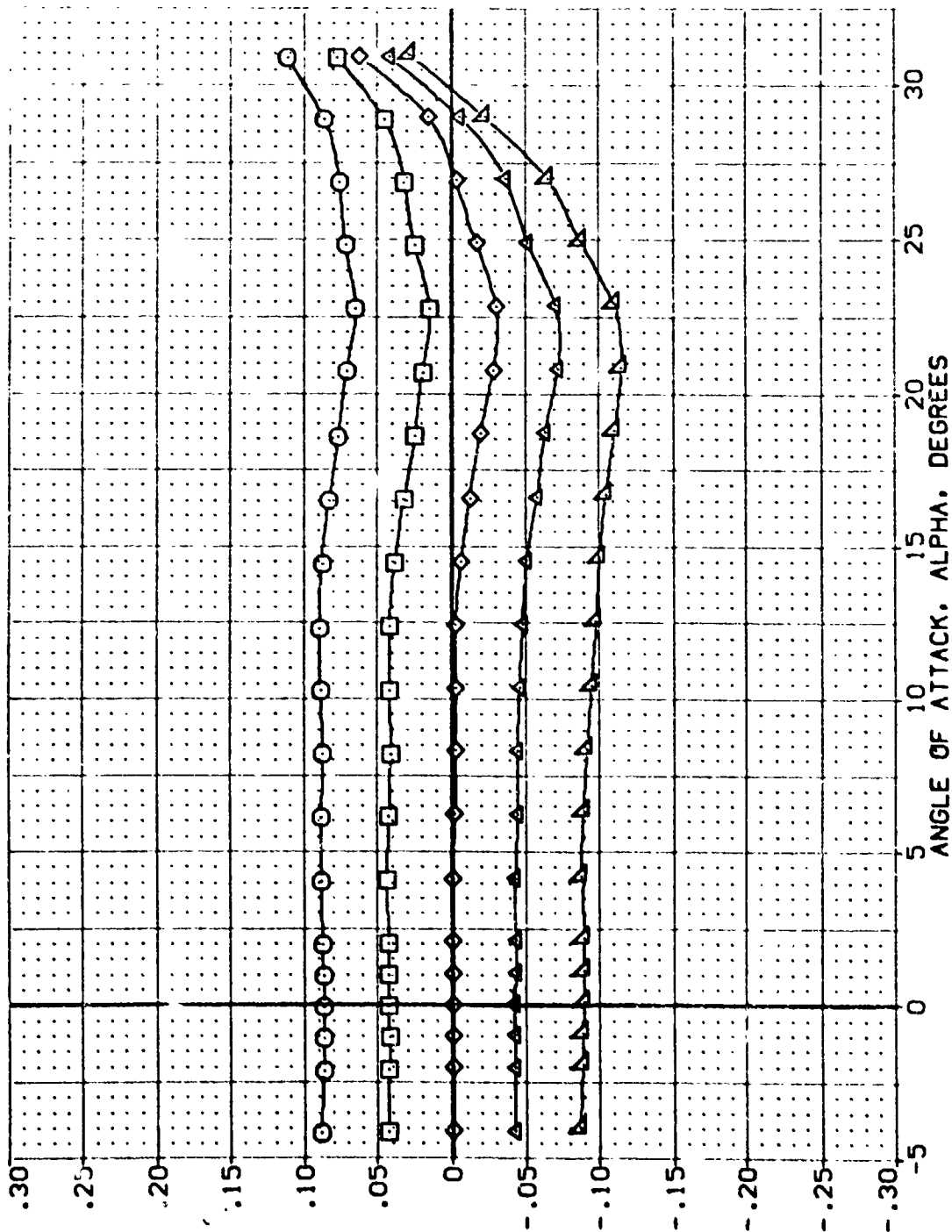


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

(A)MACH = .20

ELEVON	SPOBRK	EDFLAP	RUDDER	REFERENCE INFORMATION
-5.000	25.000	-12.000	.000	SREF 4.4119 50. FT.
.000	25.000	-12.000	.000	LREF 19.2299 INCHES
5.000	25.000	-12.000	.000	BREF 37.9359 INCHES
10.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
15.000	25.000	-12.000	.000	YMRP .0000 INCHES
				ZMRP 15.1875 INCHES
				SCALE .0405 SCALE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B02099)	0A628 B26C9G1 5M7F8 V116E28VBR5X9
(B02090)	0A628 B26C9G1 5M7F8 V116E28VBR5X9
(B02096)	0A628 B26C9G1 5M7F8 V116E28VBR5X9
(B02097)	0A628 B26C9G1 5M7F6 V116E28VBR5X9
(B02098)	0A628 B26C9G1 5M7F8 V116E28VBR5X9

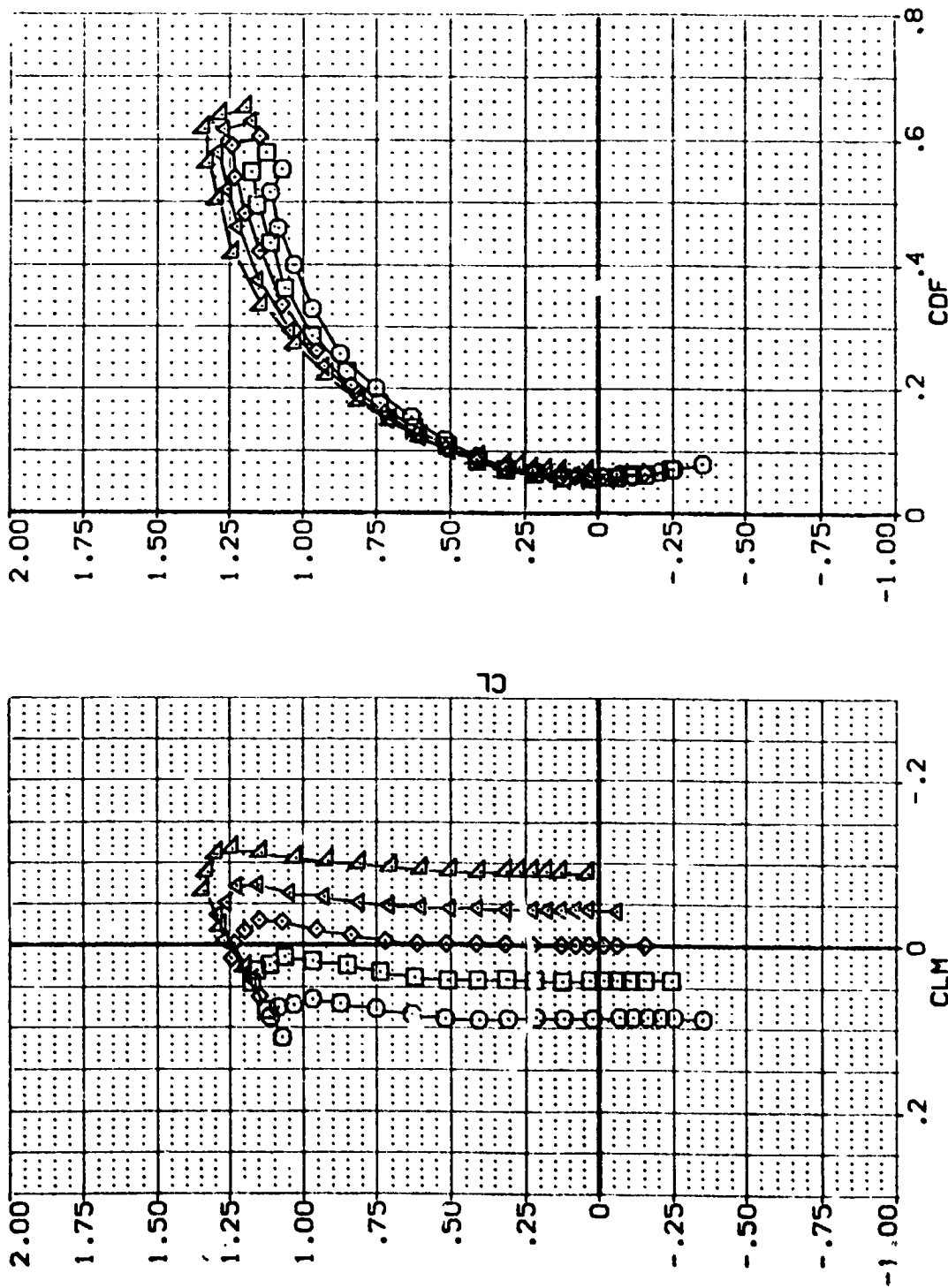


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

(A)MACH = .20

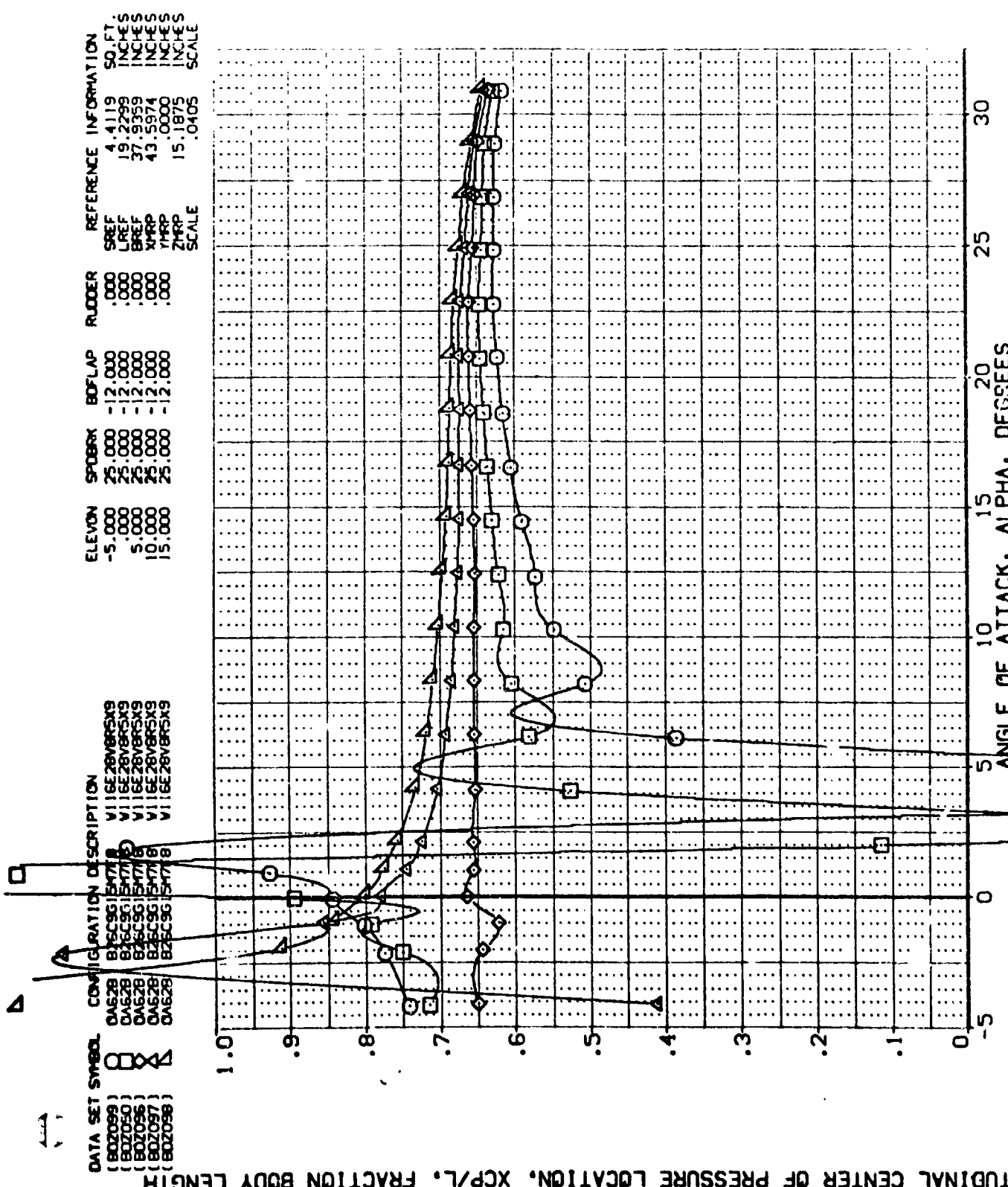


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B02098)	0A628 B26C9G1547F8 V116E28V8R5X9	-5.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(B02099)	0A628 B26C9G1547F8 V116E28V8R5X9	.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(B02090)	0A628 B26C9G1547F8 V116E28V8R5X9	5.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(B02091)	0A628 B26C9G1547F8 V116E28V8R5X9	10.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
(B02092)	0A628 B26C9G1547F8 V116E28V8R5X9	15.000	25.000	-12.000	.000	YMRP .0000 INCHES
(B02093)	0A628 B26C9G1547F8 V116E28V8R5X9					ZMRP 15.1875 INCHES
						SCALE .0405

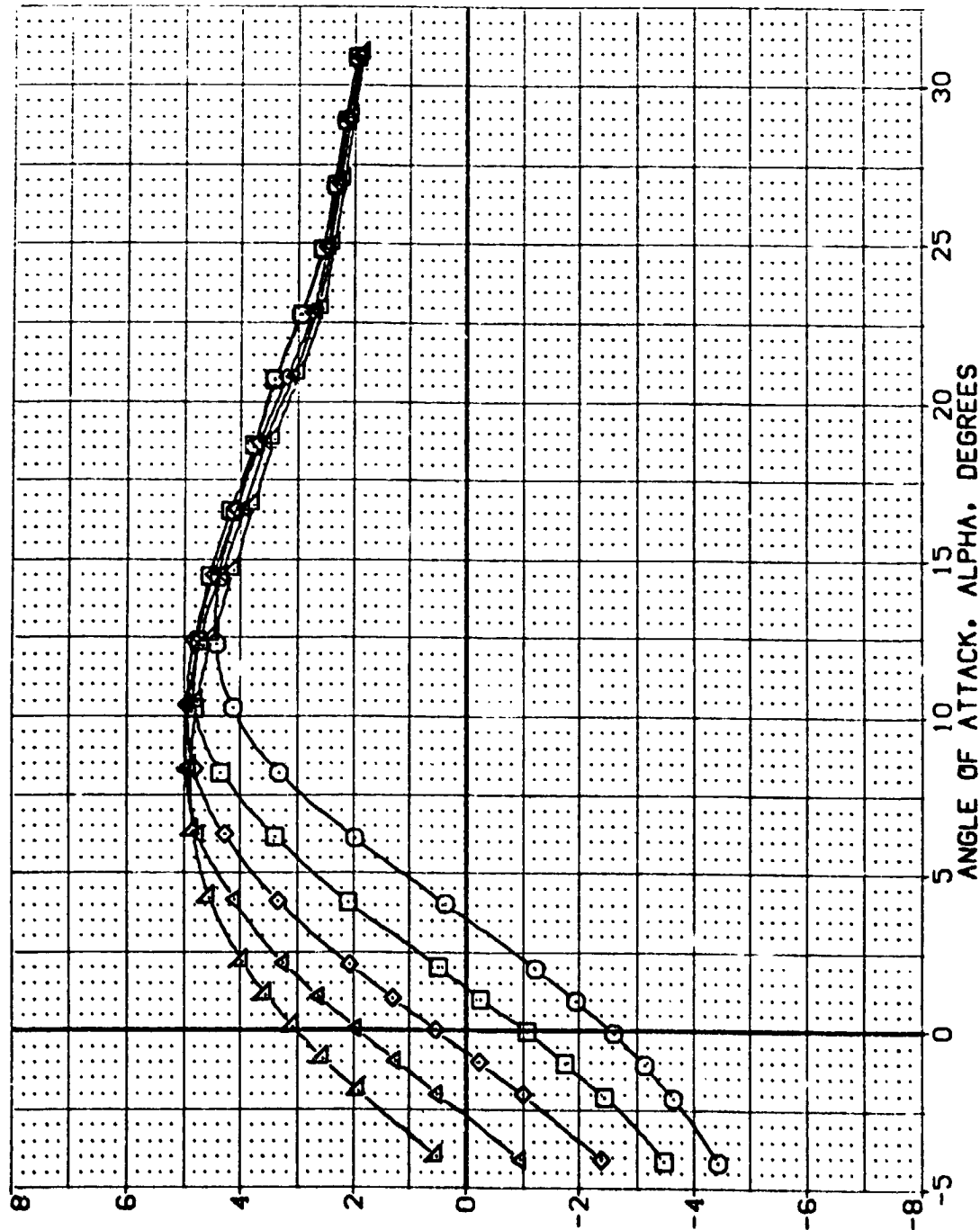


FIG 33 ELEVON EFFECTIVENESS. FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

(A)MACH = .20



1

1

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B02104)	0A628 B26C9G15M7F8 V116E28V8RSX9	-40.000	25.000	-12.000	.000	SREF 4.4119 SO.FT.
(B02102)	0A628 B26C9G15M7F8 V116E28V8RSX9	-30.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(B02102)	0A628 B26C9G15M7F8 V116E28V8RSX9	-20.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(B02101)	0A628 B26C9G15M7F8 V116E28V8RSX9	-15.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
(B02100)	0A628 B26C9G15M7F8 V116E28V8RSX9	-10.000	25.000	-12.000	.000	YMRP .0000 INCHES
(B02090)	0A628 B26C9G15M7F8 V116E28V8RSX9	.000	25.000	-12.000	.000	ZMRP 15.1875 INCHES
						SCALE .0405 SCALE

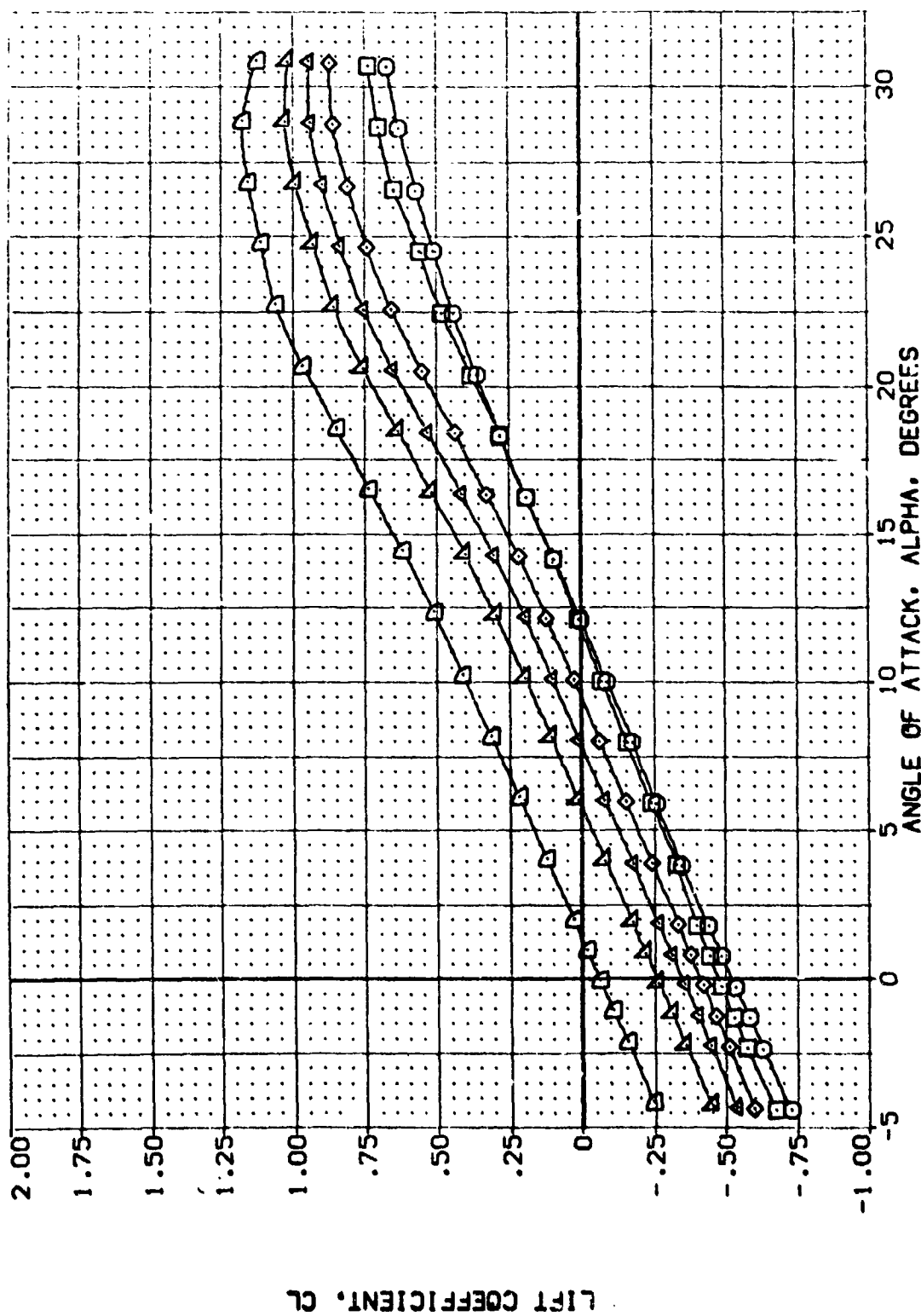


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BOFLAP	RUDDER	REFERENCE INFORMATION
(BDZ104)	0A628 B26C9G15H7F8 V116E28V8R5X9	-40.000	25.000	-12.000	.000	SREF 4.4119 SO.FT.
(BDZ103)	0A628 B26C9G15H7F8 V116E28V8R5X9	-30.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(BDZ102)	0A628 B26C9G15H7F8 V116E28V8R5X9	-20.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(BDZ101)	0A628 B26C9G15H7F8 V116E28V8R5X9	-15.000	25.000	-12.000	.000	XMRP 43.5574 INCHES
(BDZ100)	0A628 B26C9G15H7F8 V116E28V8R5X9	-10.000	25.000	-12.000	.000	ZMRP .0000 INCHES
(BDZ090)	0A628 B26C9G15H7F8 V116E28V8R5X9	.000	25.000	-12.000	.000	SCALE 15.1875 INCHES
						.0405

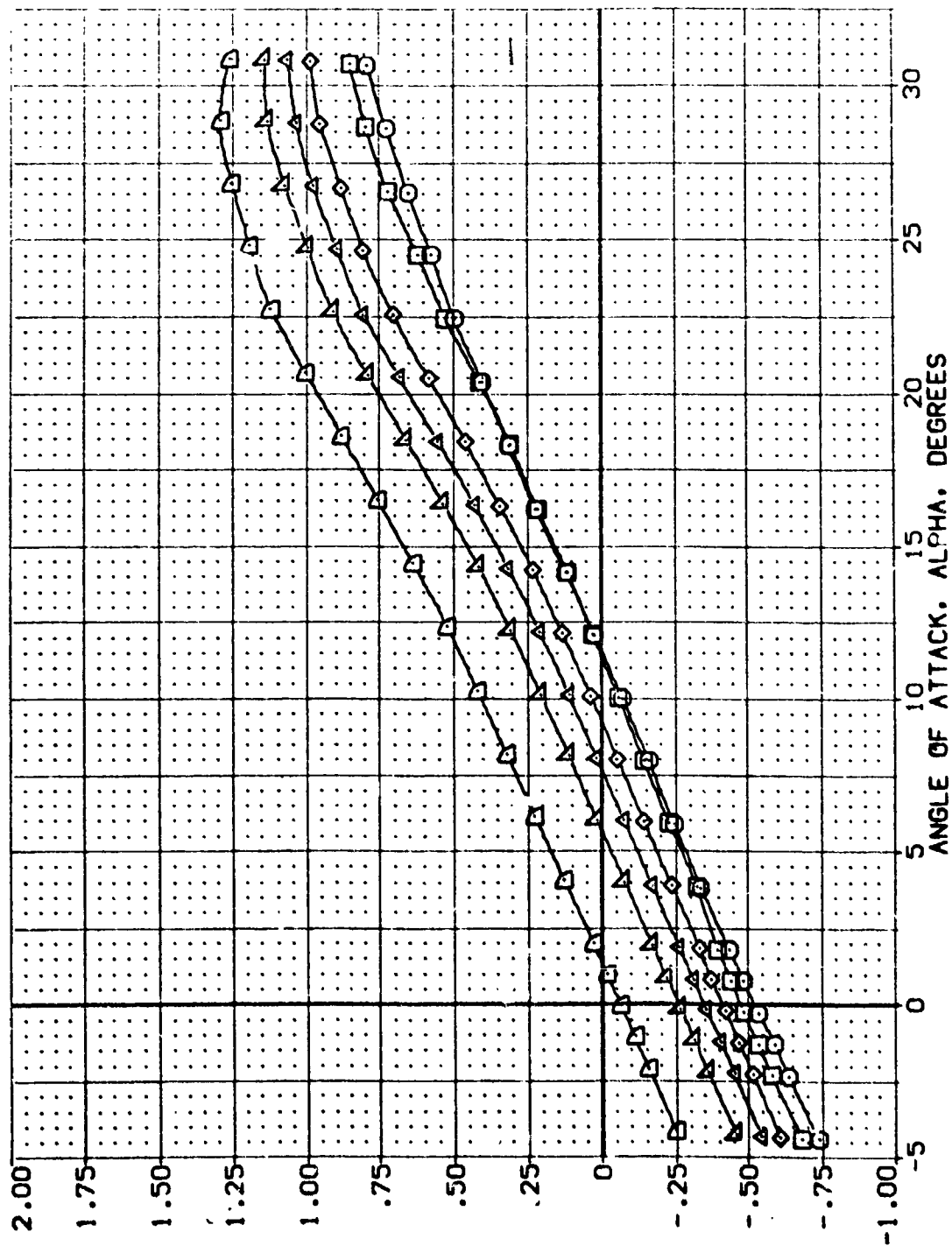


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

$M_{\infty} = .20$

10

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B02104)	04628 B26C9G1 S4778 V116E28V8RSX9	-40.000	25.000	-12.000	.000	SREF 4.4119 SO.FT.
(B02103)	04628 B26C9G1 S4778 V116E28V8RSX9	-30.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(B02102)	04628 B26C9G1 S4778 V116E28V8RSX9	-20.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(B02101)	04628 B26C9G1 S4778 V116E28V8RSX9	-15.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
(B02100)	04628 B26C9G1 S4778 V116E28V8RSX9	-10.000	25.000	-12.000	.000	YMRP .0000 INCHES
(B02090)	04628 B26C9G1 S4778 V116E28V8RSX9	.000	25.000	-12.000	.000	ZMRP 15.1875 INCHES
						SCALE .0405

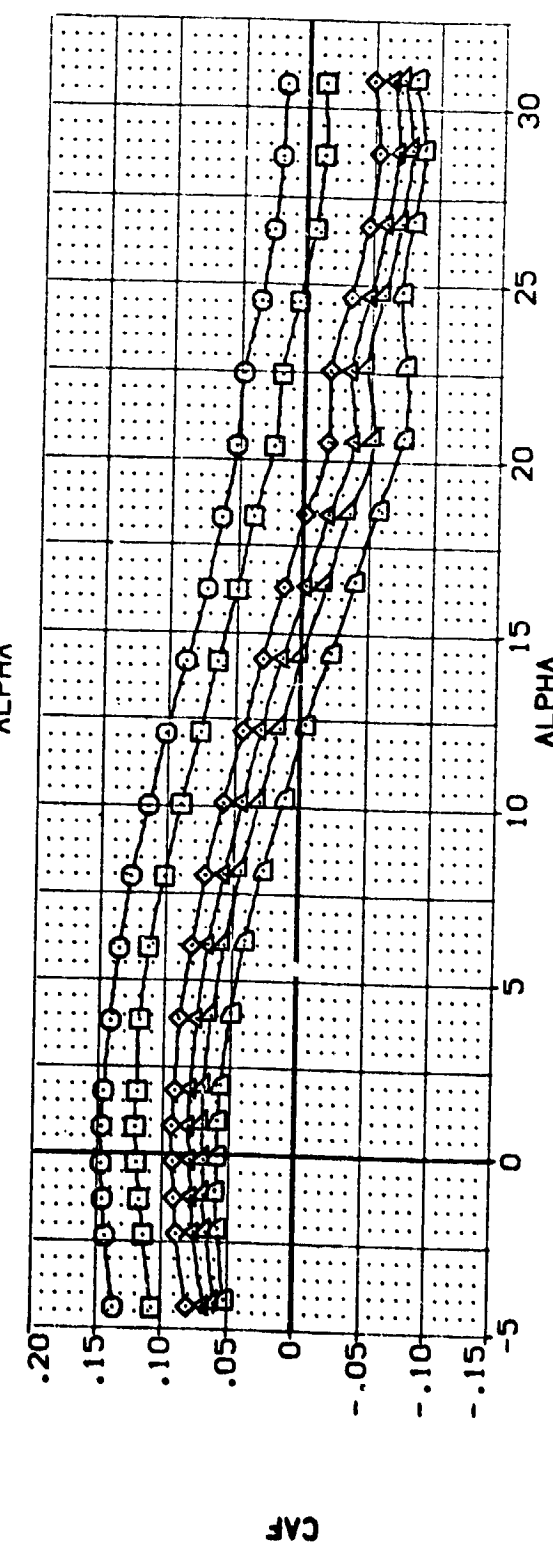
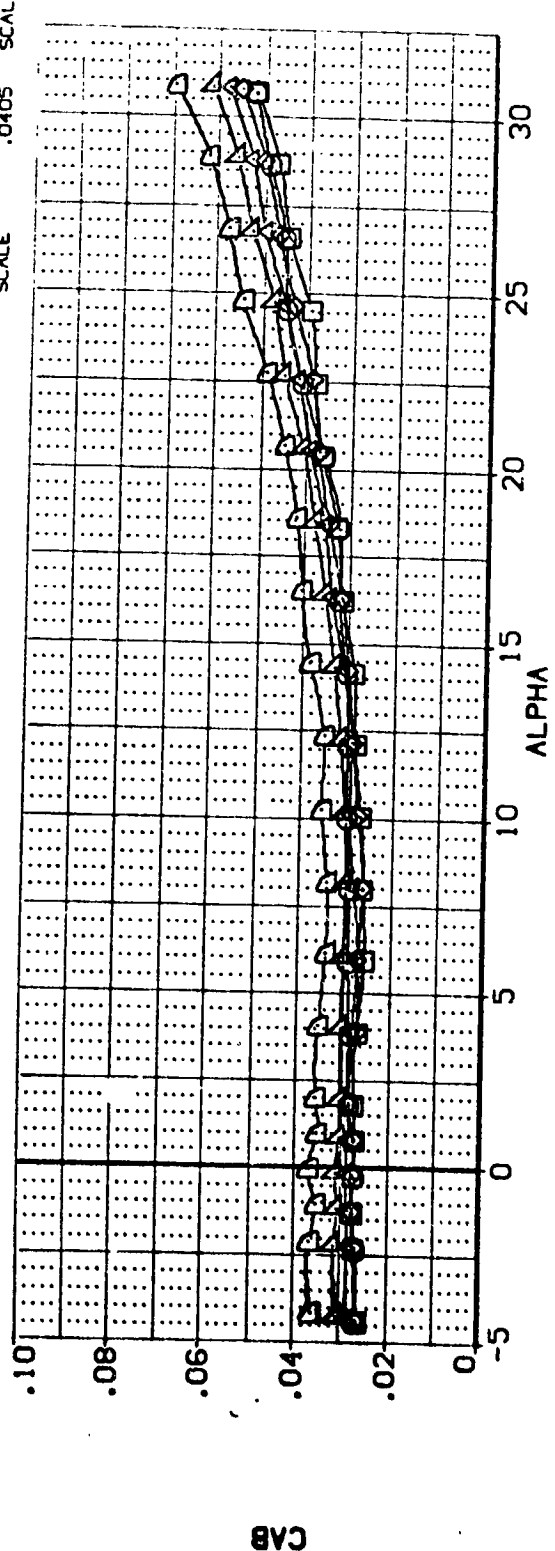


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B02104)	QAG28 B26C5G15M77-8 V116E28V85X9	-40.000	25.000	-12.000	.000	SREF 4.4119 SO.FT. INCHES
(B02103)	QAG28 B26C5G15M77-8 V116E28V85X9	-30.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(B02102)	QAG28 B26C5G15M77-8 V116E28V85X9	-20.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(B02101)	QAG28 B26C5G15M77-8 V116E28V85X9	-15.000	25.000	-12.000	.000	VMRP 43.5974 INCHES
(B02100)	QAG28 B26C5G15M77-8 V116E28V85X9	-10.000	25.000	-12.000	.000	ZMRP 15.0000 INCHES
(B02050)	QAG28 B26C5G15M77-8 V116E28V85X9	.000	25.000	-12.000	.000	ZMRP 15.1875 INCHES
						SCALE .0405

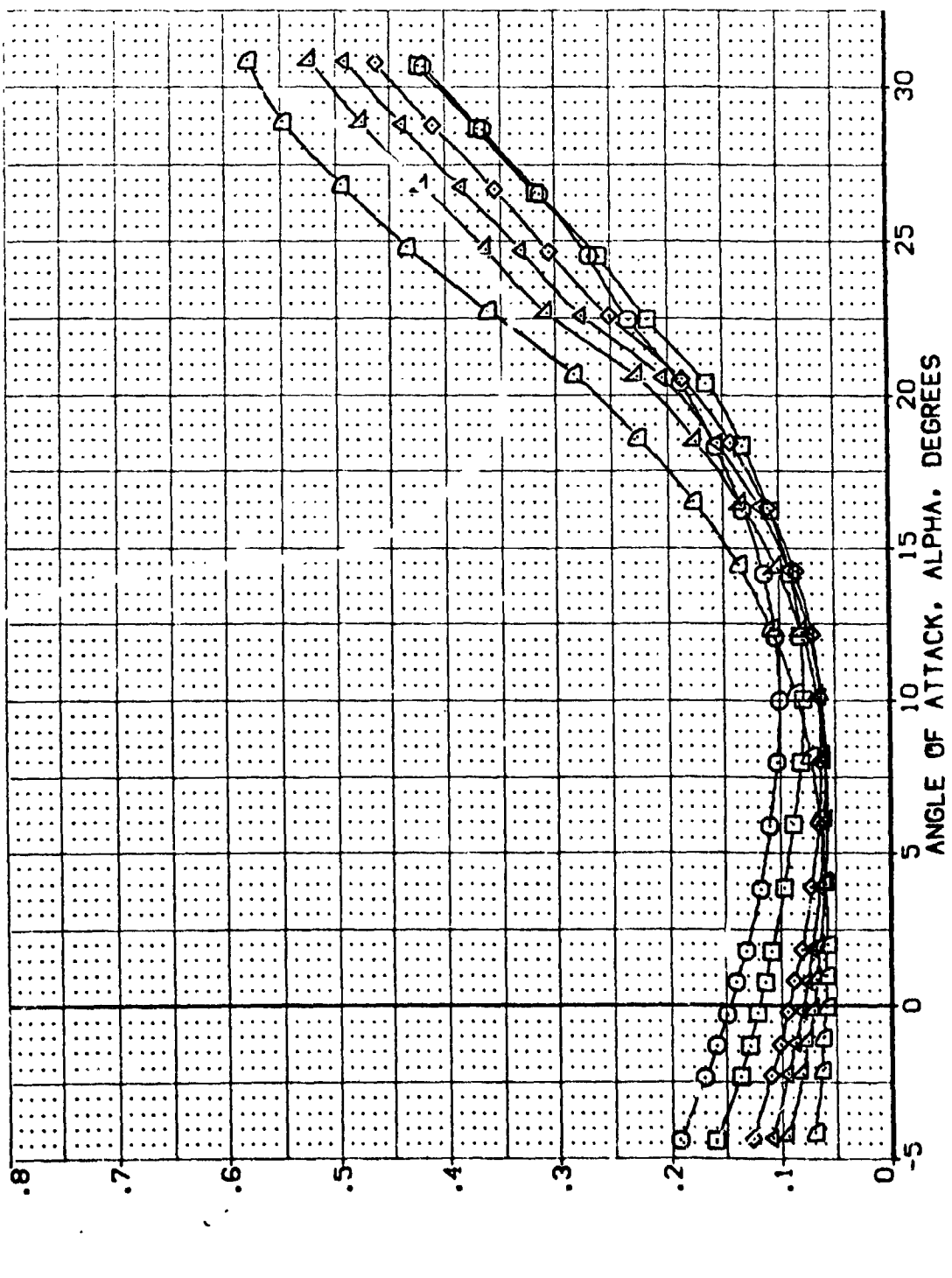


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE  
 MACH = .20  
 PAGE 352

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B02104)	0A628 B26C9G1S47F8 V116E28V8FSX9	-40.000	25.000	-12.000	.000	SREF 4.4119 50.FT. INCHES
(B02103)	0A628 B26C9G1S47F8 V116E28V8FSX9	-30.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(B02102)	0A628 B26C9G1S47F8 V116E28V8FSX9	-20.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(B02101)	0A628 B26C9G1S47F8 V116E28V8FSX9	-15.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
(B02100)	0A628 B26C9G1S47F8 V116E28V8FSX9	-10.000	25.000	-12.000	.000	YMRP .0000 INCHES
(B02090)	0A628 B26C9G1S47F8 V116E28V8FSX9	.000	25.000	-12.000	.000	ZMRP 15.1875 INCHES
						SCALE .0405

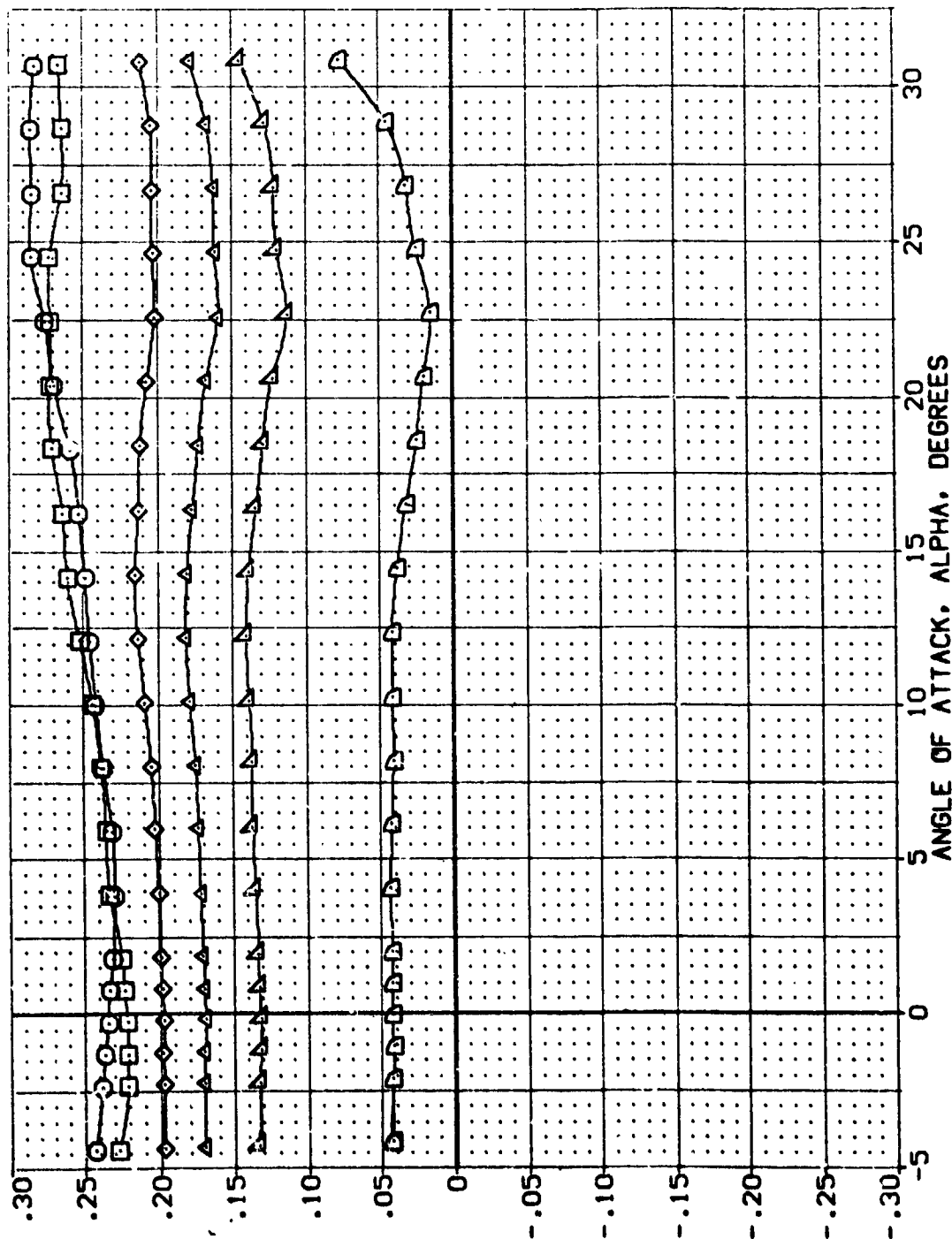


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BDFLAP	RUDDER	REFERENCE INFORMATION
(B02104)	0A628 B26C9G15M7F8 V116E28V8R5X9	-40.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(B02103)	0A628 B26C9G15M7F8 V116E28V8R5X9	-30.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(B02102)	0A628 B26C9G15M7F8 V116E28V8R5X9	-20.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(B02101)	0A628 B26C9G15M7F8 V116E28V8R5X9	-15.000	25.000	-12.000	.000	XRRP 43.5974 INCHES
(B02100)	0A628 B26C9G15M7F8 V116E28V8R5X9	-10.000	25.000	-12.000	.000	YRRP 15.1875 INCHES
(B02090)	0A628 B26C9G15M7F8 V116E28V8R5X9	.000	25.000	-12.000	.000	ZRRP .0405 SCALE

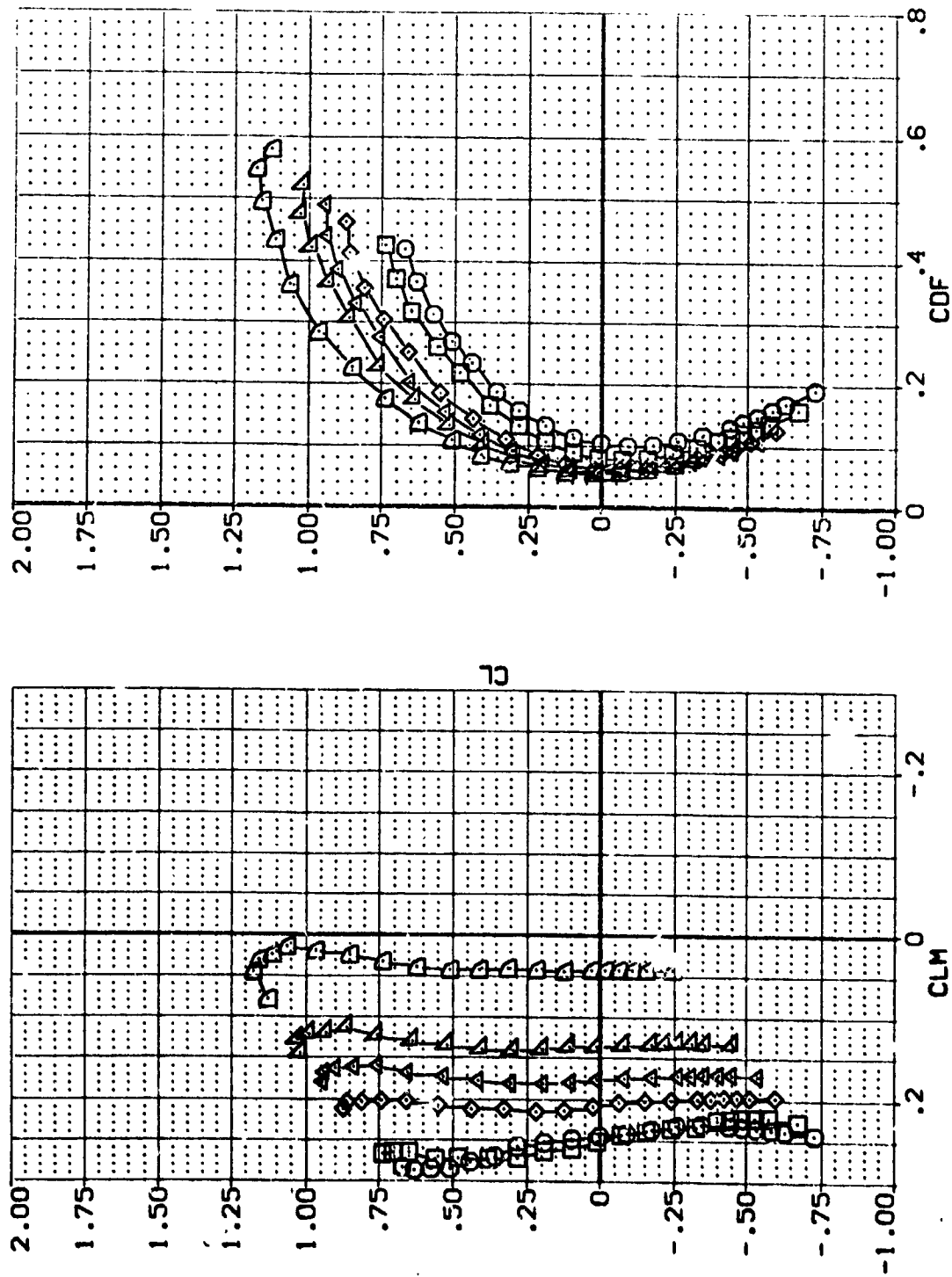


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(802104)	0A628 B26C9G15M718 V11E28V8FSX9	-40.000	25.000	-12.000	.000	SQ.FT. 4.4119
(802103)	0A628 B26C9G15M718 V11E28V8FSX9	-30.000	25.000	-12.000	.000	INCHES 19.2299
(802102)	0A628 B26C9G15M718 V11E28V8FSX9	-20.000	25.000	-12.000	.000	INCHES 37.9359
(802101)	0A628 B26C9G15M718 V11E28V8FSX9	-15.000	25.000	-12.000	.000	INCHES 43.5974
(802100)	0A628 B26C9G15M718 V11E28V8FSX9	-10.000	25.000	-12.000	.000	INCHES 43.0000
(802090)	0A628 B26C9G15M718 V11E28V8FSX9	.000	25.000	-12.000	.000	INCHES 15.1875
						SCALE .0405

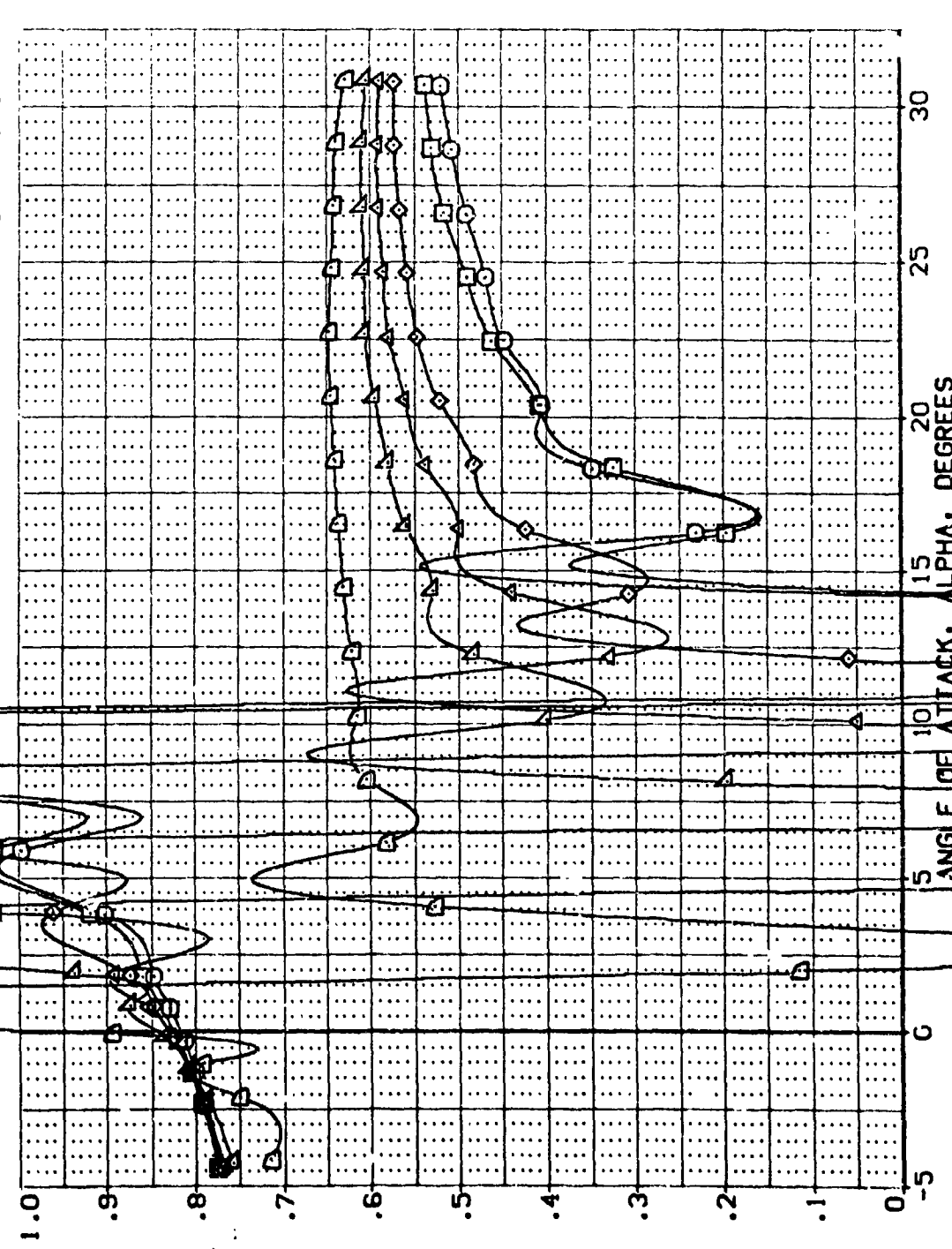


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B02104)	0A628 B26C9G1S4778 V116E28V8RSX9	-40.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(B02103)	0A628 B26C9G1S4778 V116E28V8RSX9	-30.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(B02102)	0A628 B26C9G1S4778 V116E28V8RSX9	-20.000	25.000	-12.000	.000	BREF 37.3359 INCHES
(B02101)	0A628 B26C9G1S4778 V116E28V8RSX9	-15.000	25.000	-12.000	.000	YMRP 43.5974 INCHES
(B02100)	0A628 B26C9G1S4778 V116E28V8RSX9	-10.000	25.000	-12.000	.000	ZMRP .0000 INCHES
(B02090)	0A628 B26C9G1S4778 V116E28V8RSX9	.000	25.000	-12.000	.000	SCALE 15.1875 INCHES
						SCALE .0405

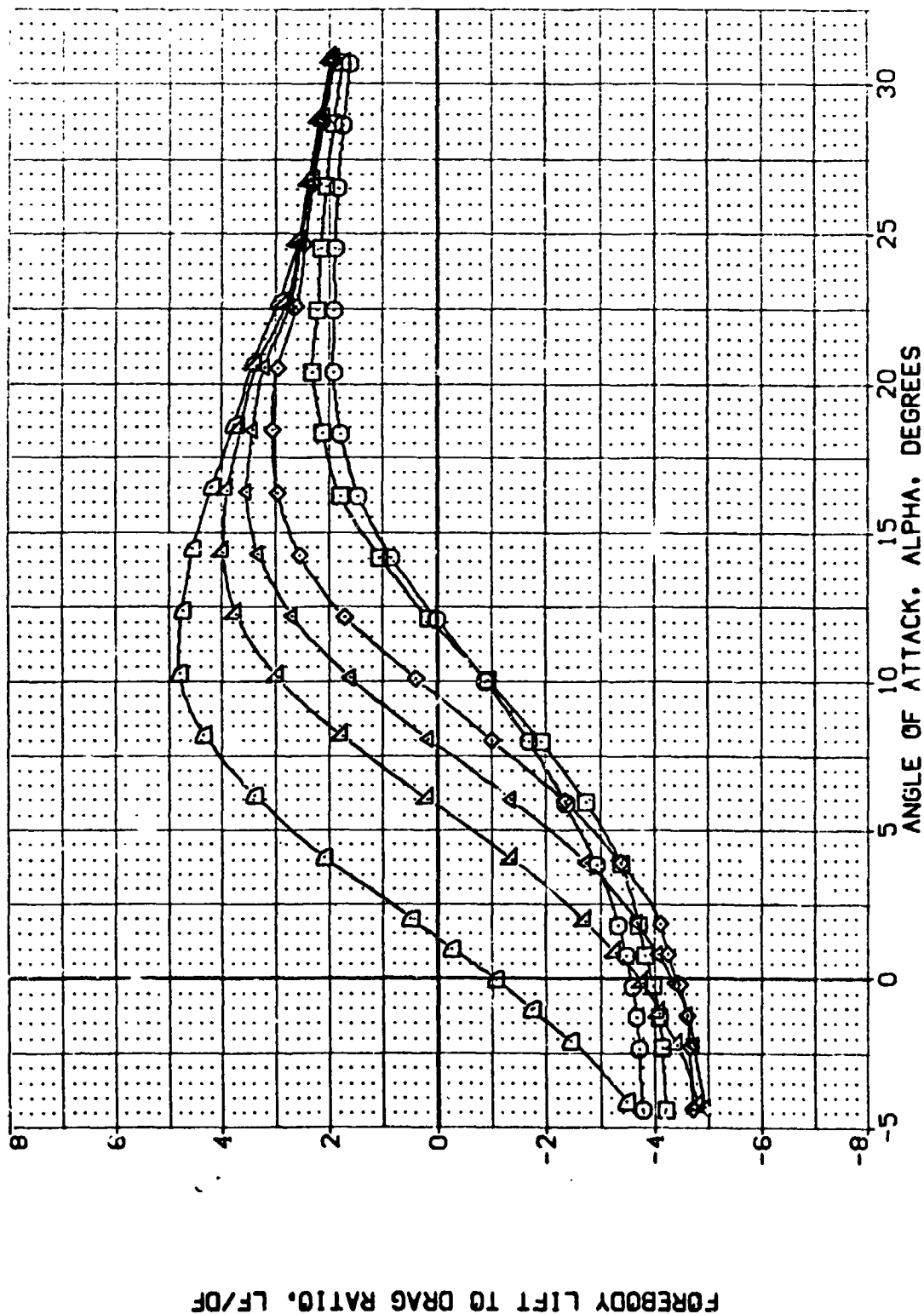


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

(MACH = .20



(10Z103)

SYMBOL	ALPHA	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	.000	MACH	.200	BETA	DELTVN	SREF	19.4219
		BOFLAP	-12.000	ATLRON	-30.000	LREF	19.2399
		RUDDER	.000	SPOBRK	-15.000	BREF	37.9359
					-5.000	XMRP	43.5974
					.000	YMRP	.0000
					10.000	ZMRP	15.1875
						SCALE	.0405
					DATASET		
					.000		
					.000		
					25.000		
					DZ103		
					DZ101		
					DZ099		
					DZ104		
					DZ095		
					DZ098		

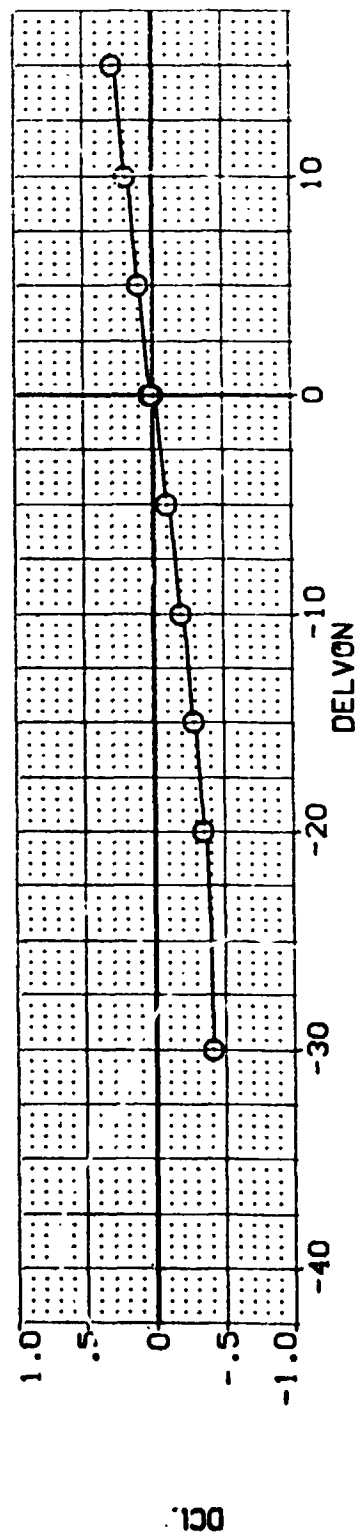
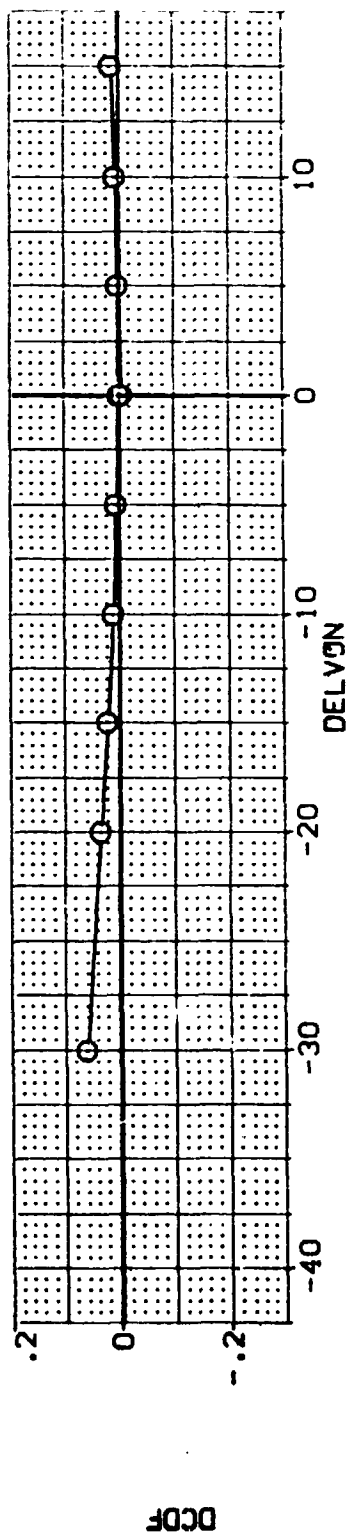
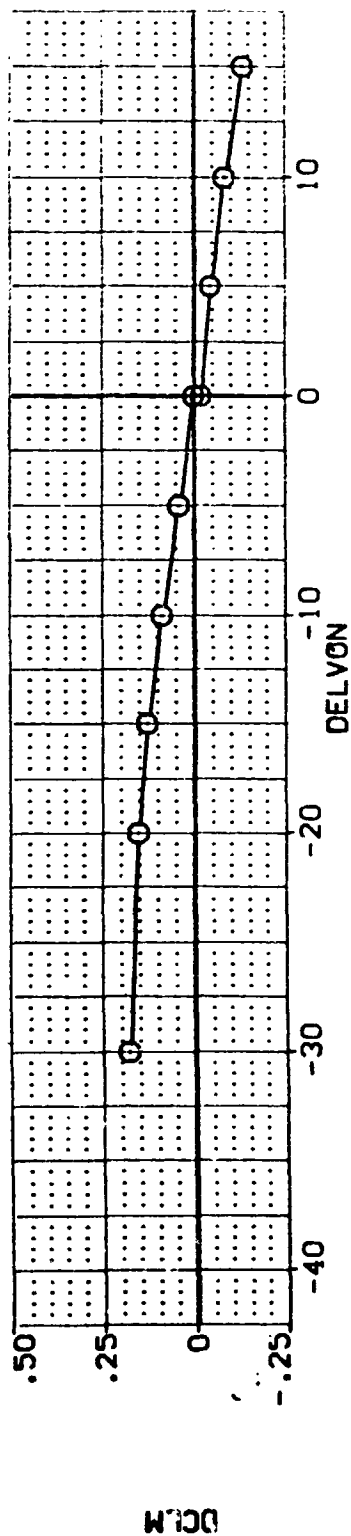


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

QAG28 B26C9G15M7F8 W116E28V8R5X9 (1DZ103)

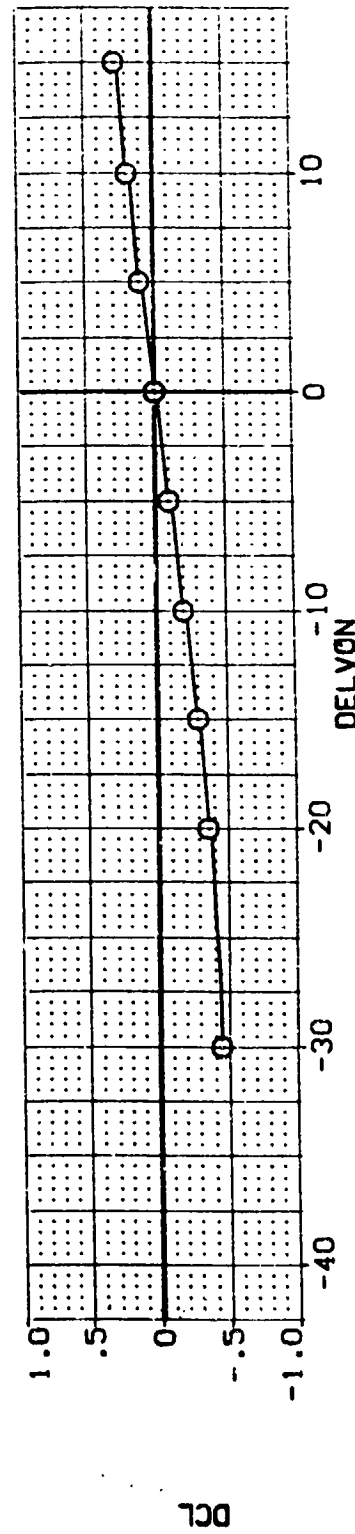
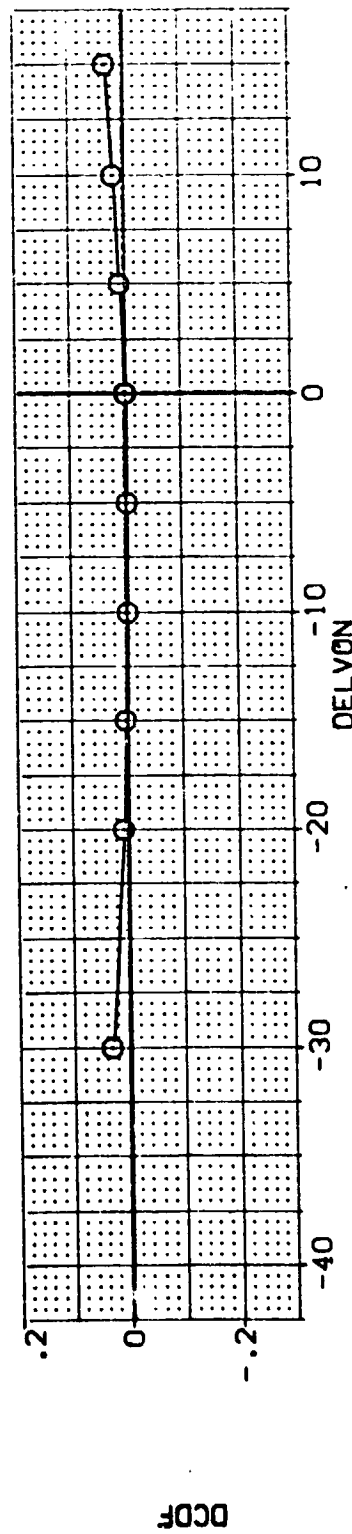
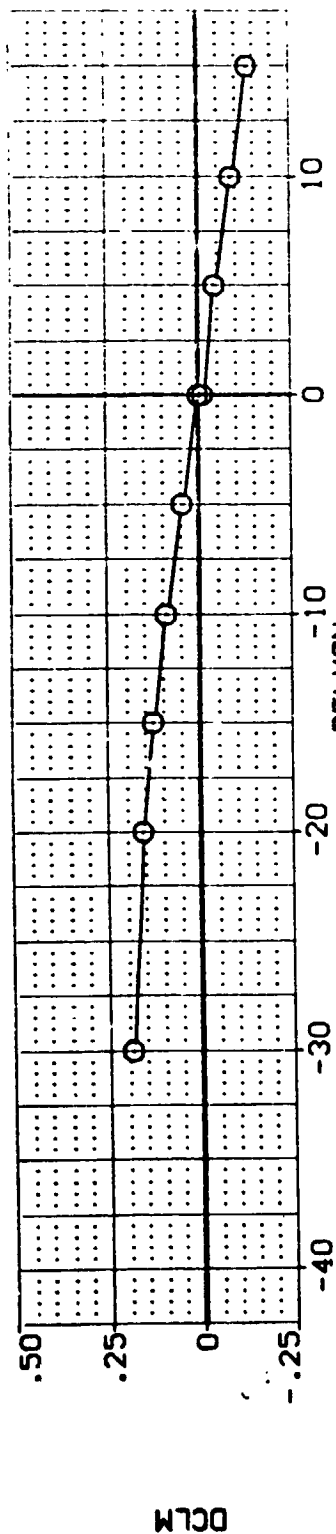
[illegible]

FIG 33  
ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE



0A62B B26C9G15M7F8 W116E28V8R5X9

(1DZ103)

SYMBOL  
O

ALPHA  
10.000

MACH  
BD FLAP  
RUDDER

PARAMETRIC VALUES  
BETA  
AILRON  
SPDRK

DATA SOURCE  
DEL VON  
DATASET  
IDZ102  
IDZ103  
IDZ101  
IDZ098  
IDZ104  
IDZ097

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE  
SQ. FT.  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES

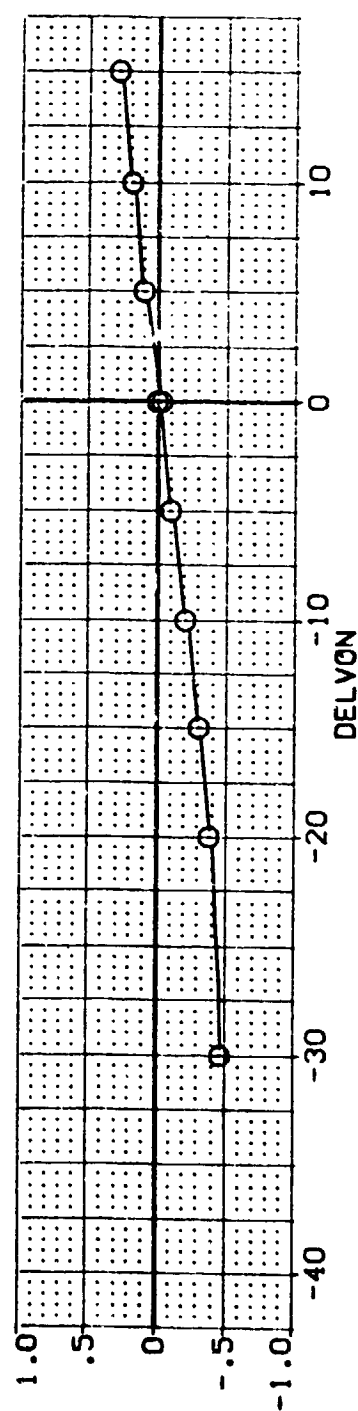
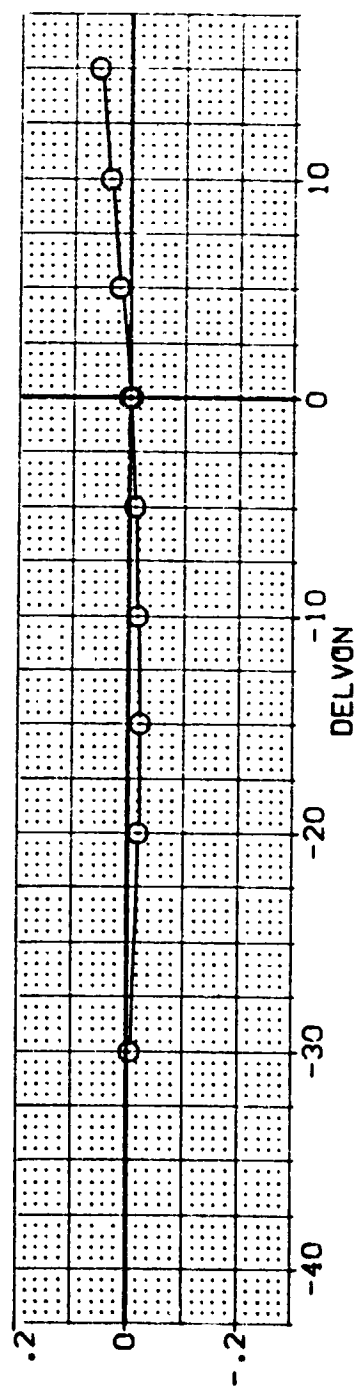
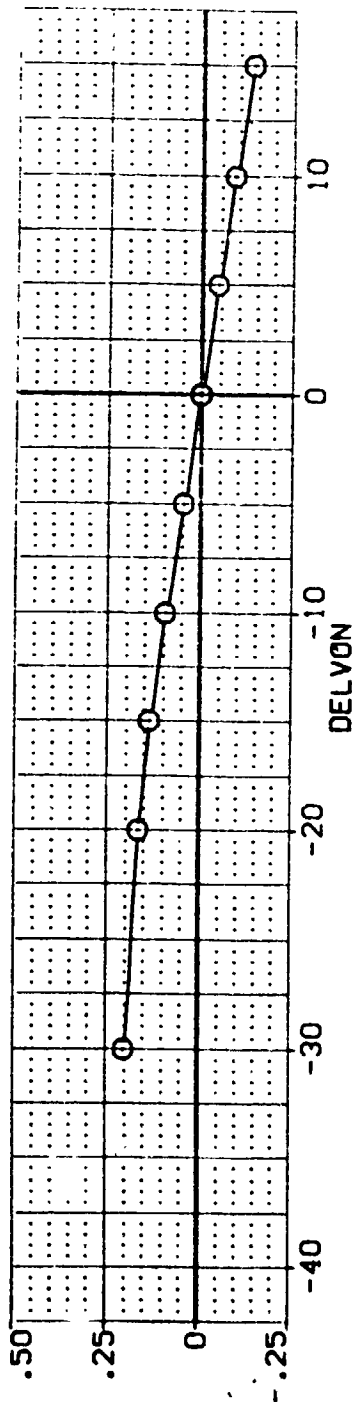


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ103)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
O	15.000		BETA	.000	1DZ103	-30.000	4.4119	50.171
			AILRON	.000	1DZ101	-15.000	19.2299	INCHES
			SPDRK	25.000	1DZ099	-5.000	37.9359	INCHES
					1DZ104	.000	43.5974	INCHES
					1DZ097	.000	YMRP	INCHES
						10.000	ZMRP	INCHES
							SCALE	SCALE

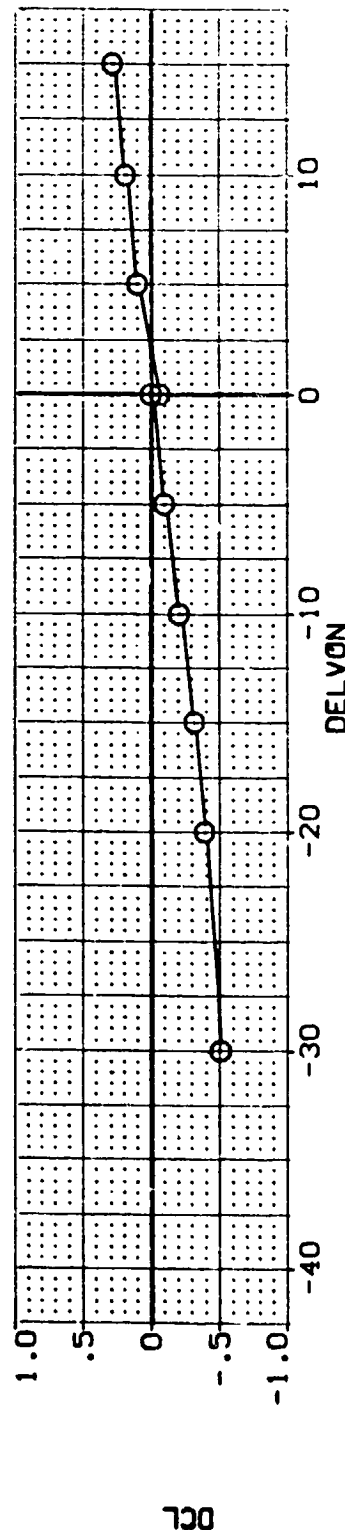
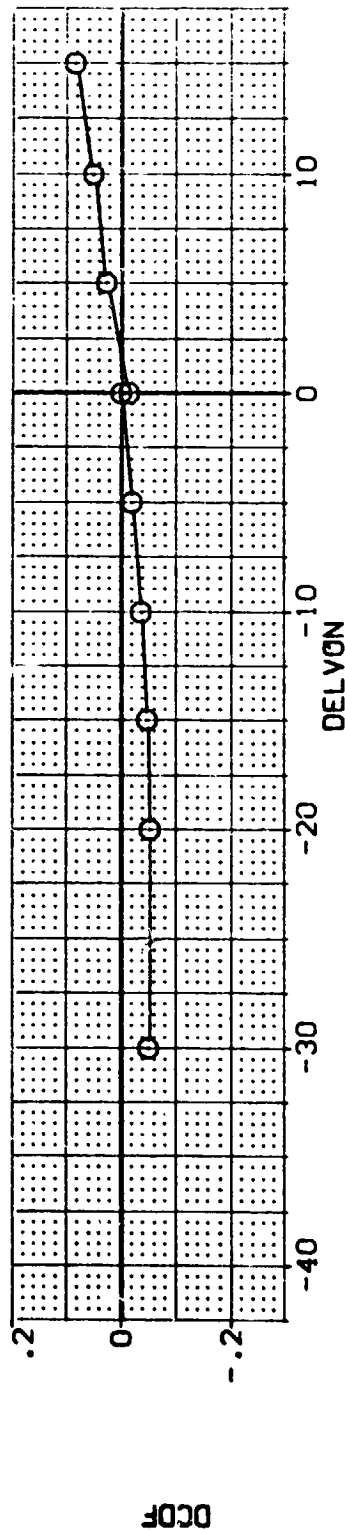
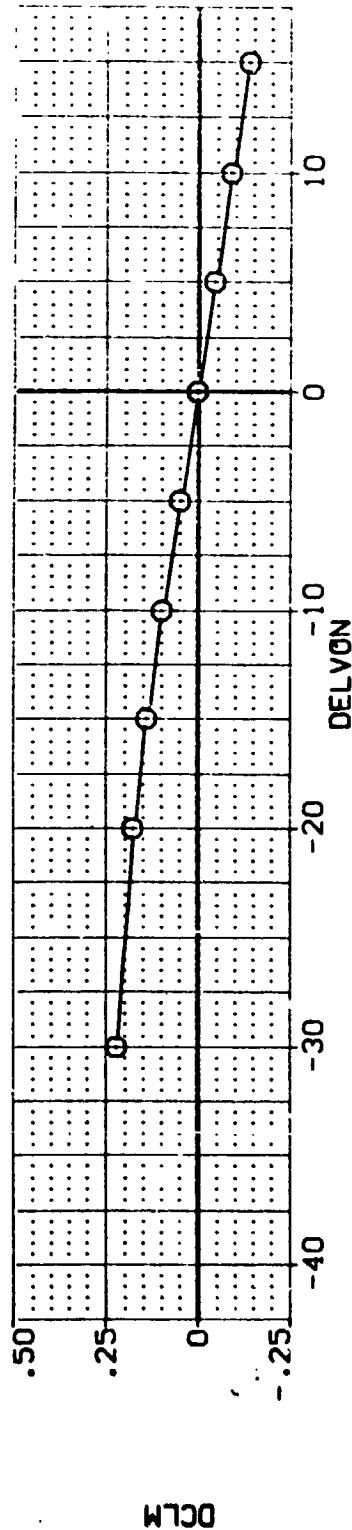


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE



0A628 B26C9G15M7F8 W116E28V8R5X9 (1DZ103)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DELTON	SREF	REFERENCE INFORMATION		
								SO.FT.	INCHES	INCHES
O	20.000	BDFLAP RUDDER	BETA	.000	1DZ103	-20.000	LREF	4.4119	19.2299	37.9359
			AILRON	.000	1DZ101	-15.000	BREF	19.2299	37.9359	43.5974
			SPOBRK	25.000	1DZ098	-5.000	YMRP	43.5974	0.000	0.000
					1DZ104	10.000	ZMRP	15.1875	0.000	0.000
					1DZ097		SCALE	0.0405		

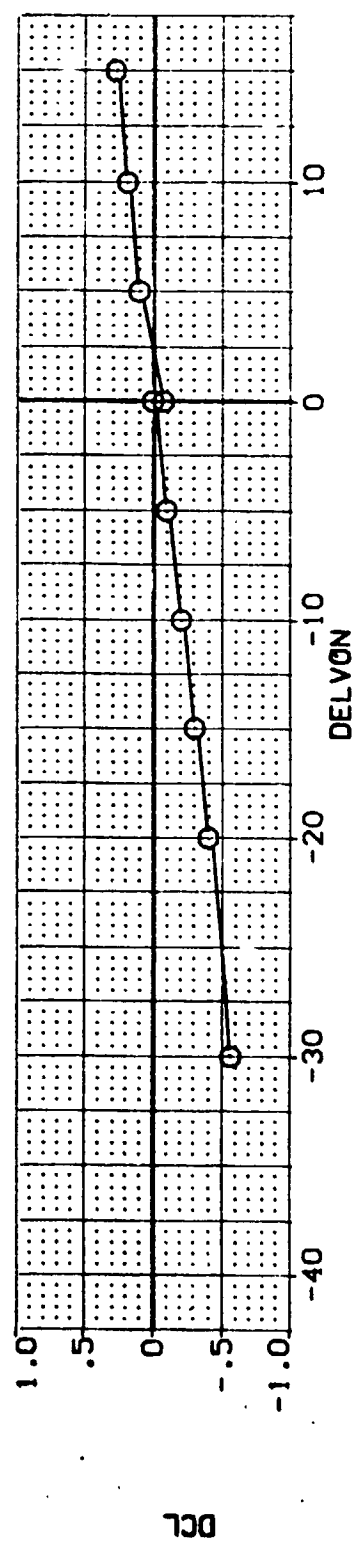
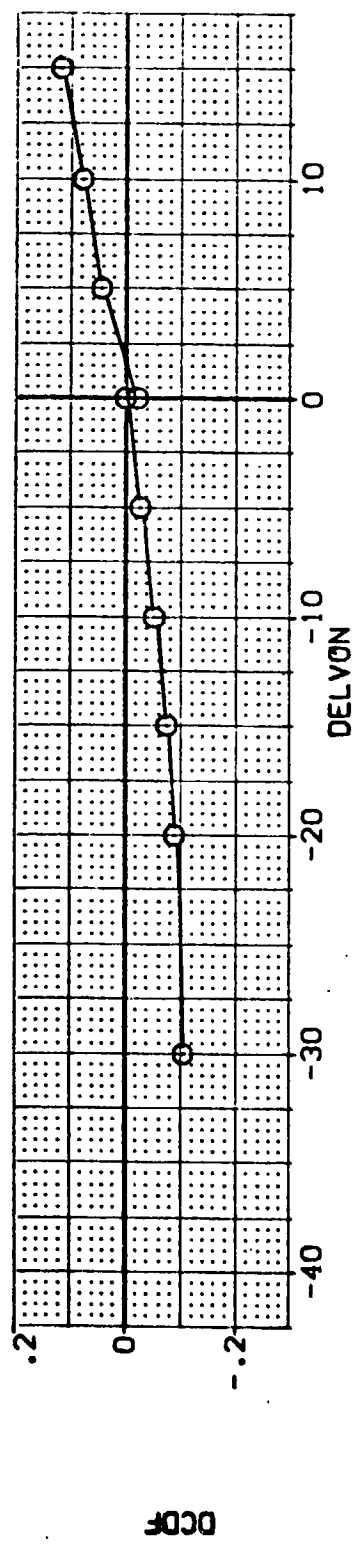
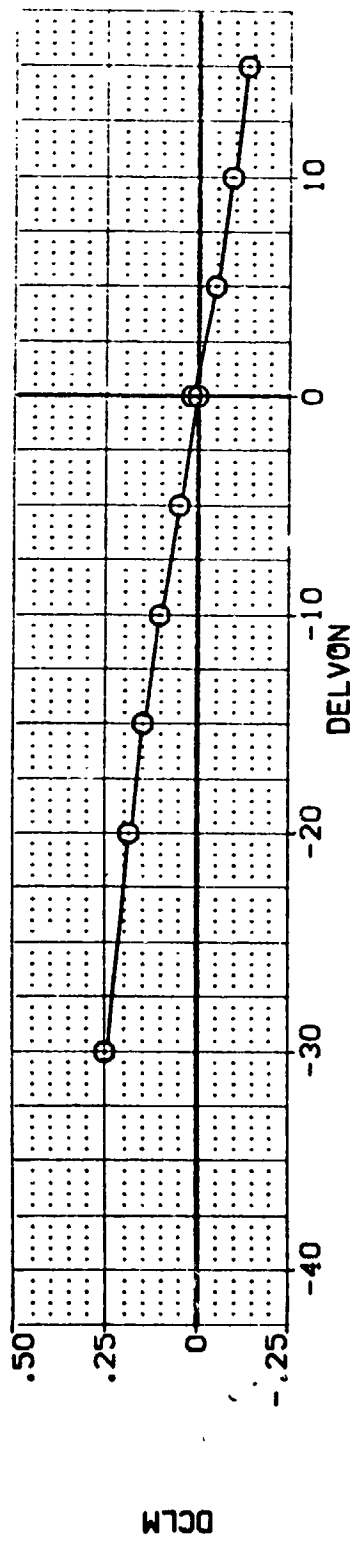


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE



Q

FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE



0A62B B26C9G15M7F8 W116E28V8R5X9 (1DZ103)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	30.000	MACH	.000	DELTON	SREF
EDFLAP	-12.000	AIRLON	IDZ103	DELTON	LREF
RUDDER	.000	SPDRK	IDZ101	DELTON	BREF
			IDZ099	DELTON	XREF
			IDZ104	DELTON	YREF
			IDZ097	DELTON	ZREF
				DELTON	SCALE

4.4119 SQ. FT.  
19.2299 INCHES  
37.9359 INCHES  
43.5974 INCHES  
.0000 INCHES  
15.1875 INCHES  
.0405 SCALE

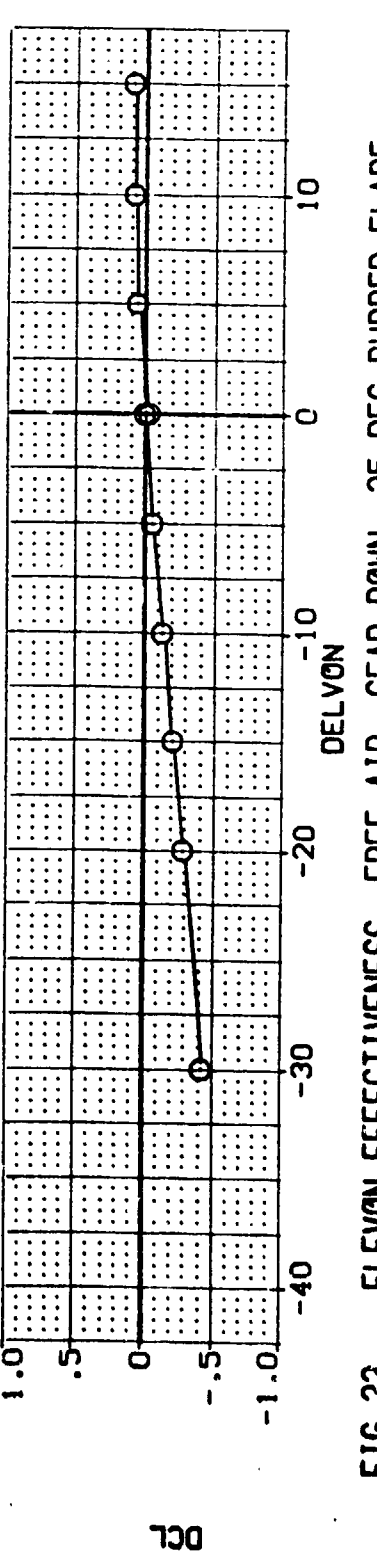
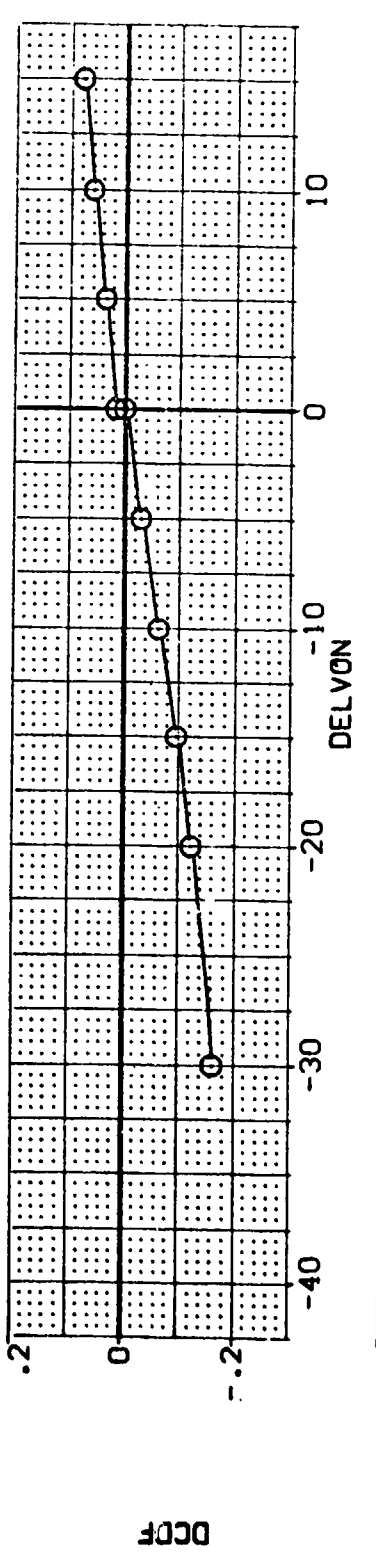
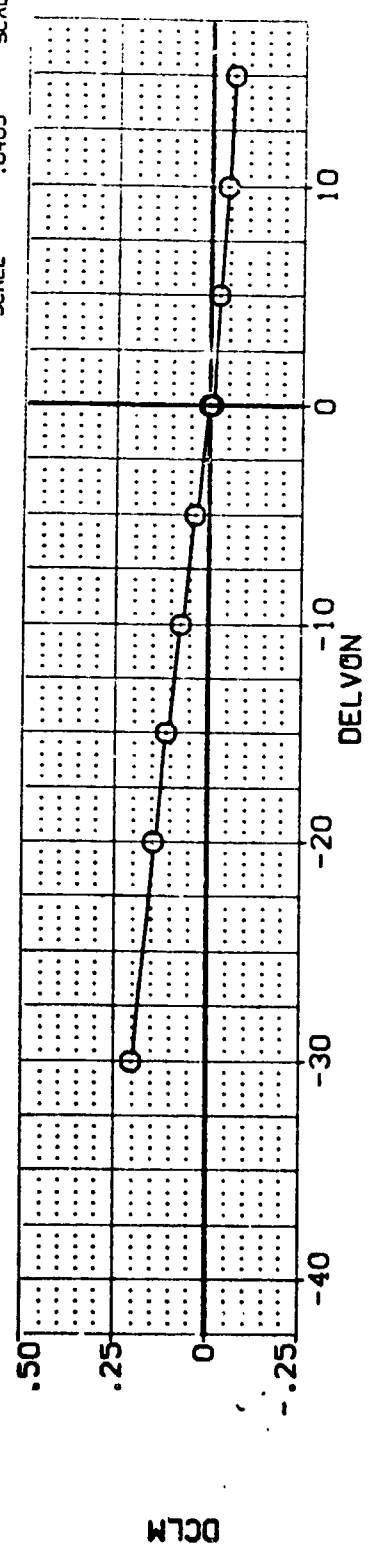


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

(10Z103)

0A628 B26C9G15M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DEL VON	SREF	REFERENCE INFORMATION
0	.000		BETA .200	.000	10Z103	-20.000	4.4119	SO. FT.
			AILRON -12.000	.000	10Z103	-10.000	19.2298	INCHES
			SPDRK .000	25.000	10Z101	.000	37.9359	INCHES
					10Z099	-5.000	43.5974	INCHES
					10Z104	.000	.0000	INCHES
					10Z097	10.000	15.1875	INCHES
							.0405	SCALE

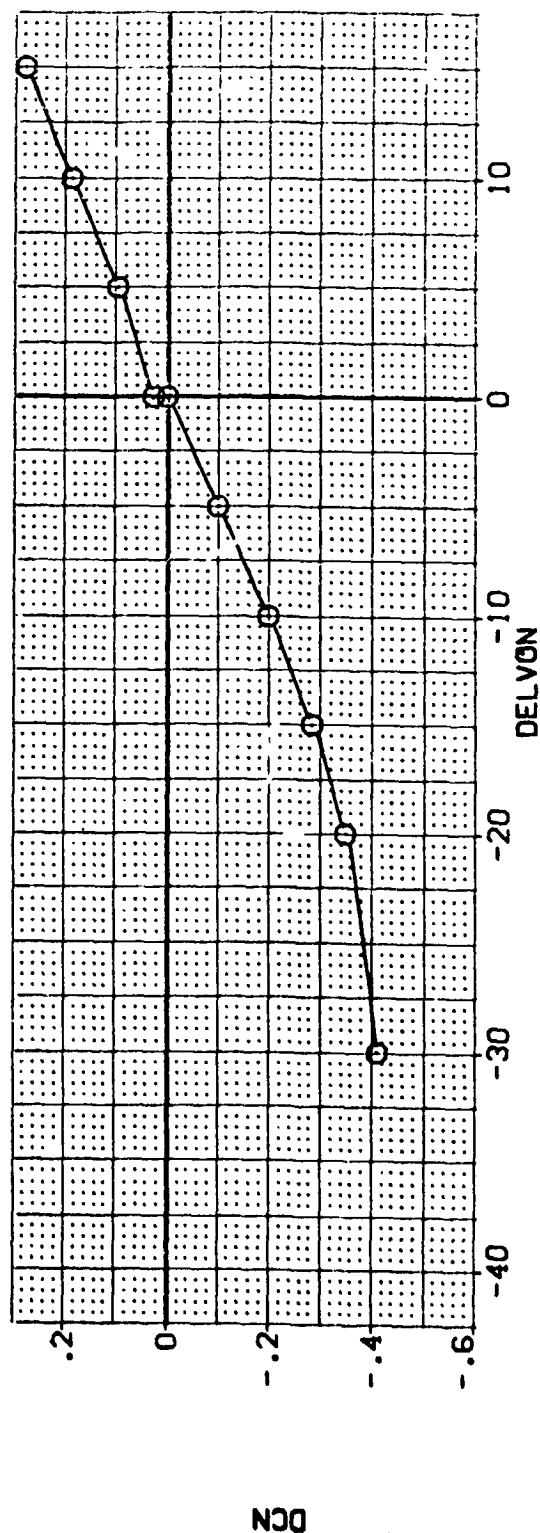
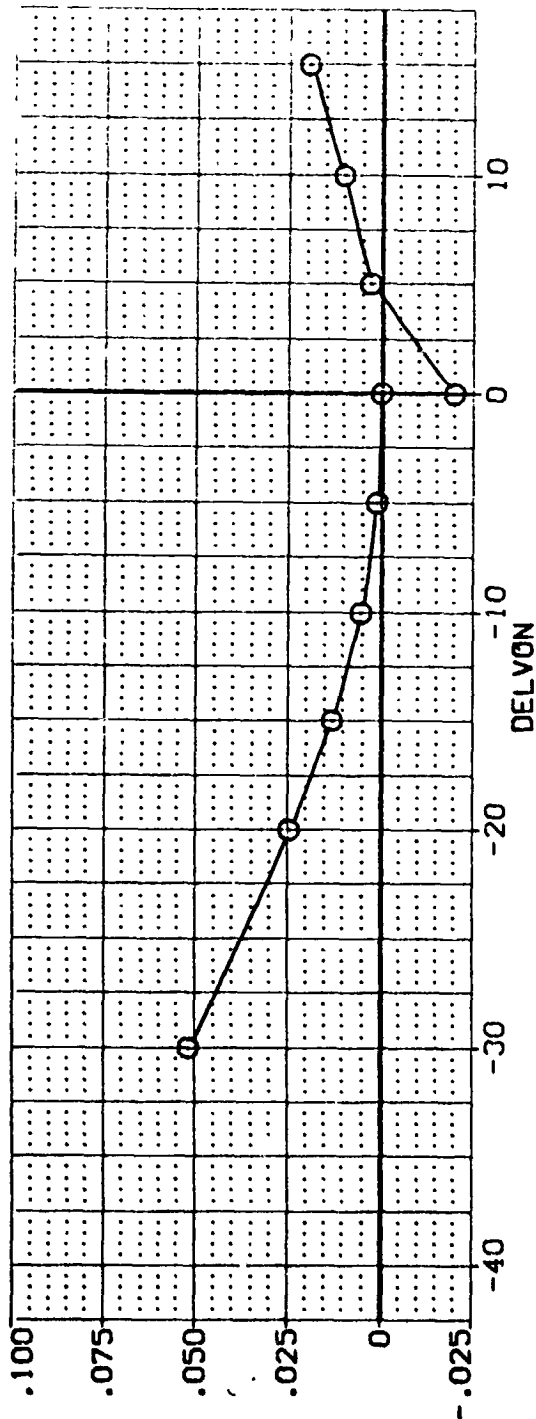


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE





SYMBOL  
C

ALPHA  
5.000

PARAMETRIC VALUES

MACH  
BOFLAP  
FLUDER

.200

BETA  
ALLRON  
SPDRK

-12.000  
.000

.000

DATASET  
IDZ103  
IDZ101  
IDZ099  
IDZ104  
IDZ097

.000  
25.000  
.000  
.000  
10.000

DATA SOURCE  
DELTON

-30.000  
-15.000  
-5.000  
10.000

DATASET  
IDZ102  
IDZ100  
IDZ090  
IDZ096  
IDZ098

-20.000  
-10.000  
.000  
5.000  
15.000

REFERENCE INFORMATION

SO.FT.  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
SCALE

4.4119  
19.2299  
37.9359  
43.5974  
.0000  
15.1875  
.0405

(IDZ103)

0A628 B26C9G15M7F8 W116E28V8R5X9

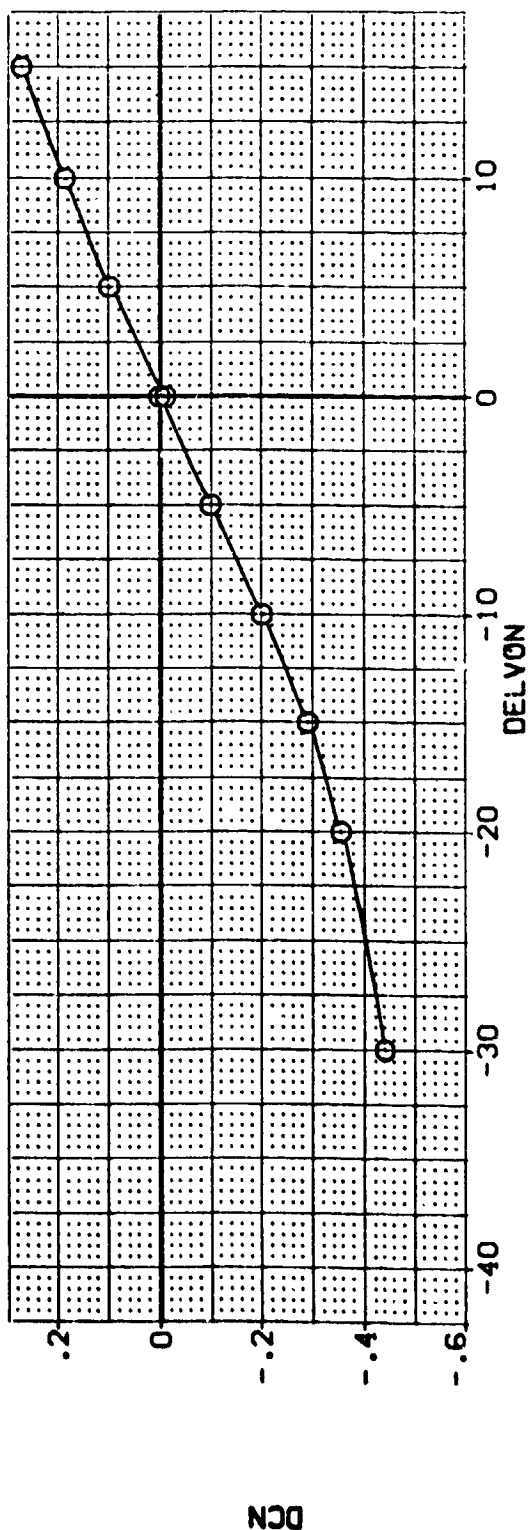
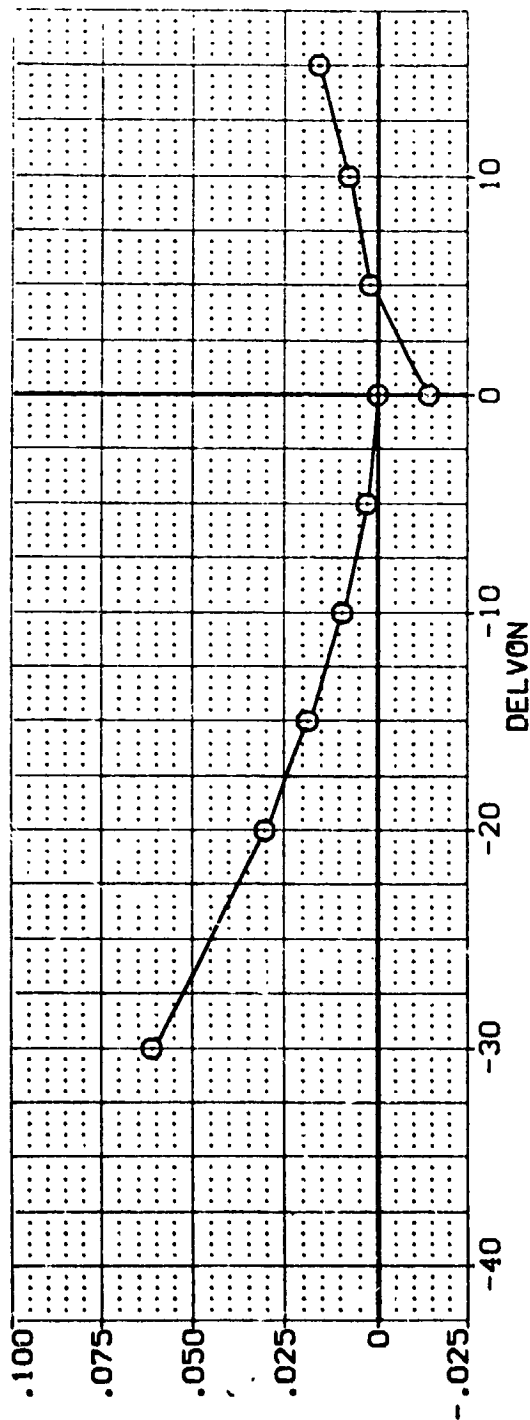


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE



0A628 B26C9G15M7F8 W116E28V8R5X9

(1DZ103)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	10.000				
			BETA	DELTON	SREF
			.200	.000	4.4119
			AILRON	DELTON	LREF
			-12.000	.000	19.2299
			SPDRK	DELTON	BREF
			.000	.000	37.9359
				DELTON	XMRP
				25.000	43.5974
				DELTON	YMRP
				10.000	.0000
				DELTON	ZMRP
				10.000	15.1875
				DELTON	SCALE
				10.000	.0405

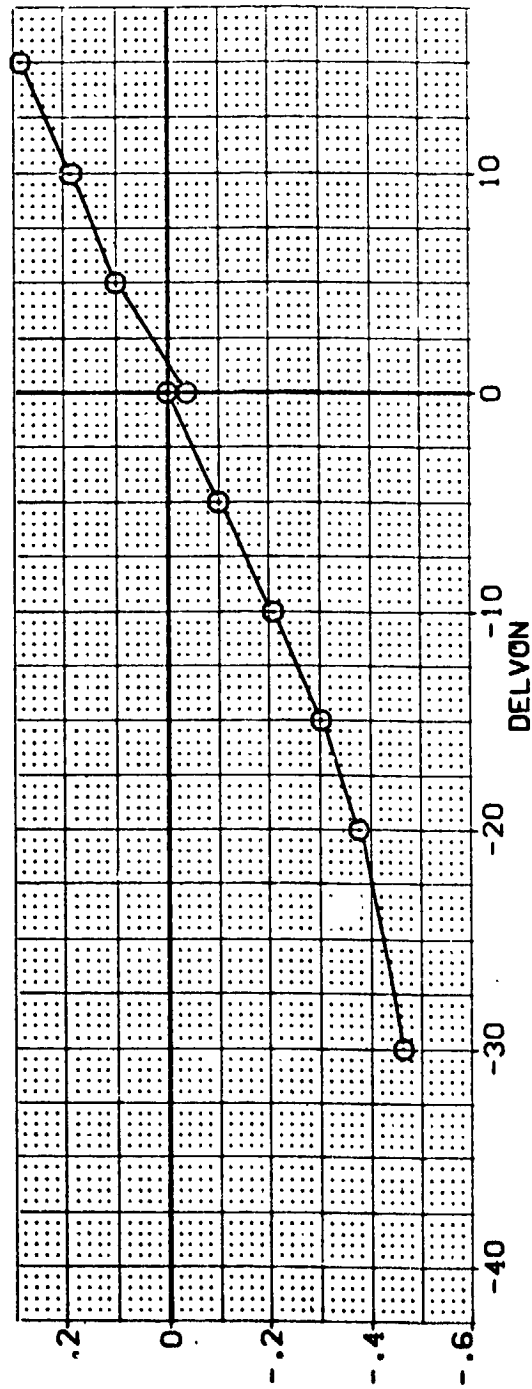
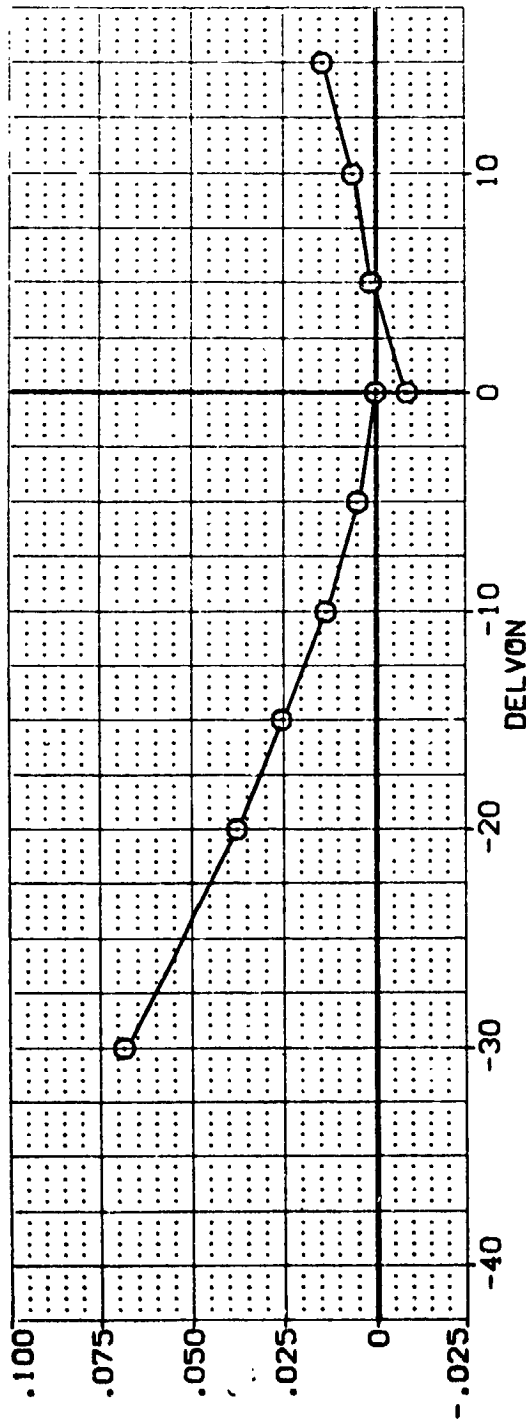


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE



0A628 B26C9G15M7F8 W116E28V8R5X9 (10Z103)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		MACH	BETA	AILRON	SPDRK	DELTON	DATASET	DELTON	SREF	SO.FT.	
O	15.000	.200	.000	.000	.000	10Z103	-20.000	LREF	4.1119	INCHES	
						10Z101	-15.000	BREF	19.2299	INCHES	
						10Z098	-5.000	XMRP	37.9359	INCHES	
						10Z104	.000	YMRP	43.5974	INCHES	
						10Z097	10.000	ZMRP	15.1875	INCHES	
								SCALE	.0405	SCALE	

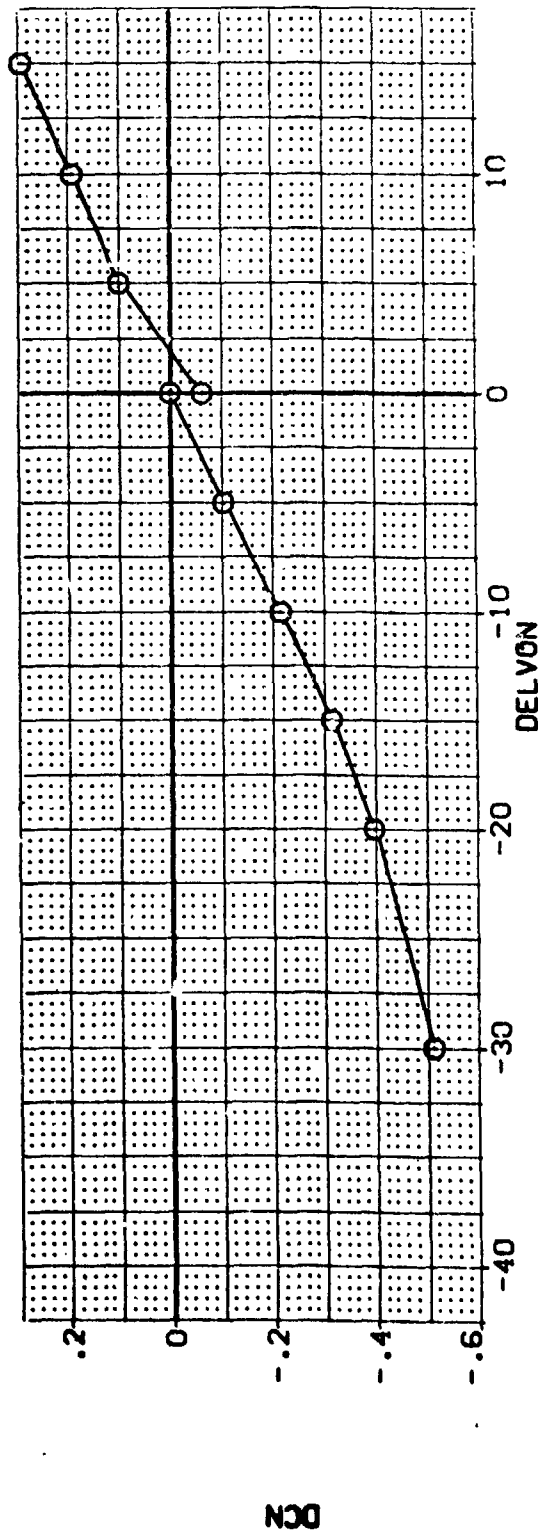
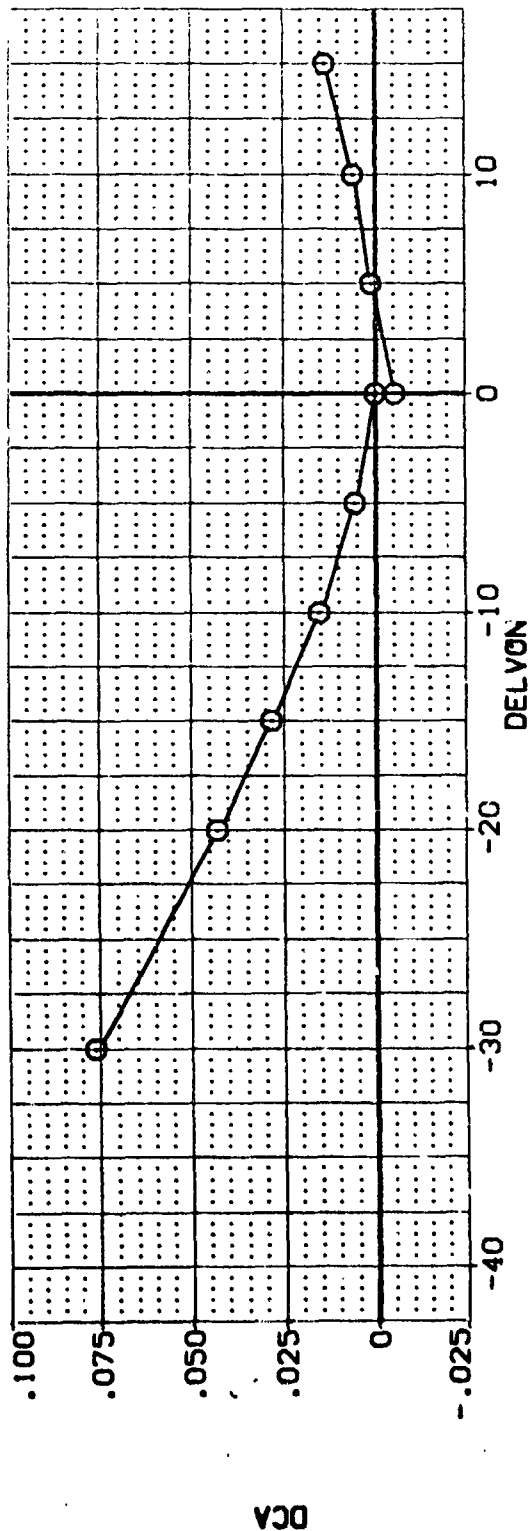


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE



(1DZ103)

0A62B B26C9G15M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE	REFERENCE INFORMATION		
			SOFLAP	BETA	AILRON		DELTON	SREF	SO.FT.
O	20.000	RUDDER	.000	.200	-12.000	1DZ103	-20.000	LREF	4.4119
						1DZ101	-10.000	BREF	9.2299
						1DZ099	-5.000	XMRP	37.9359
						1DZ104	5.000	YMRP	43.5974
						1DZ097	10.000	ZMRP	.0000
							15.000	SCALE	15.1875
									.0405
									INCHES
									INCHES
									INCHES
									INCHES
									SCALE

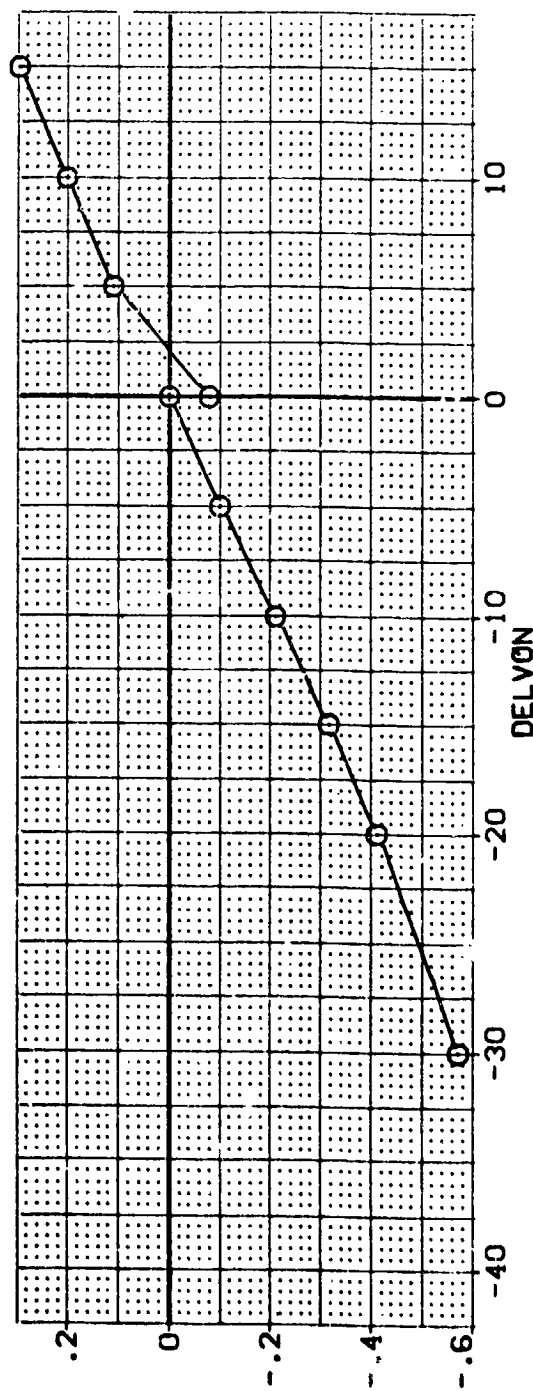
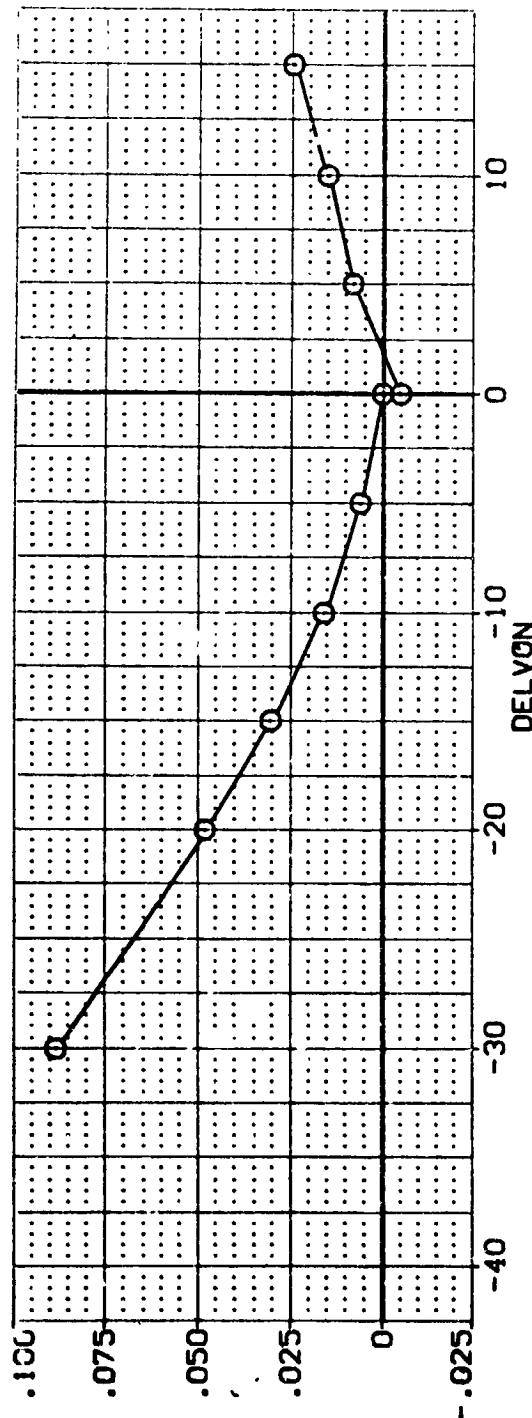


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

0A628 B26C9G15M7F8 W116E28V8R5X9

(1DZ103)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	25.000		.200 BETA	DELTON	4.41.9 SO.FT.
			-12.000 AILRON	.000 DATASET	19.2299 INCHES
			.000 SPOBRK	1DZ103	37.9359 INCHES
				1DZ101	43.5974 INCHES
				1DZ099	.000 YMRP
				1DZ104	15.0000 INCHES
				1DZ096	15.1875 INCHES
				1DZ097	.0405 SCALE
				1DZ098	15.000 SCALE

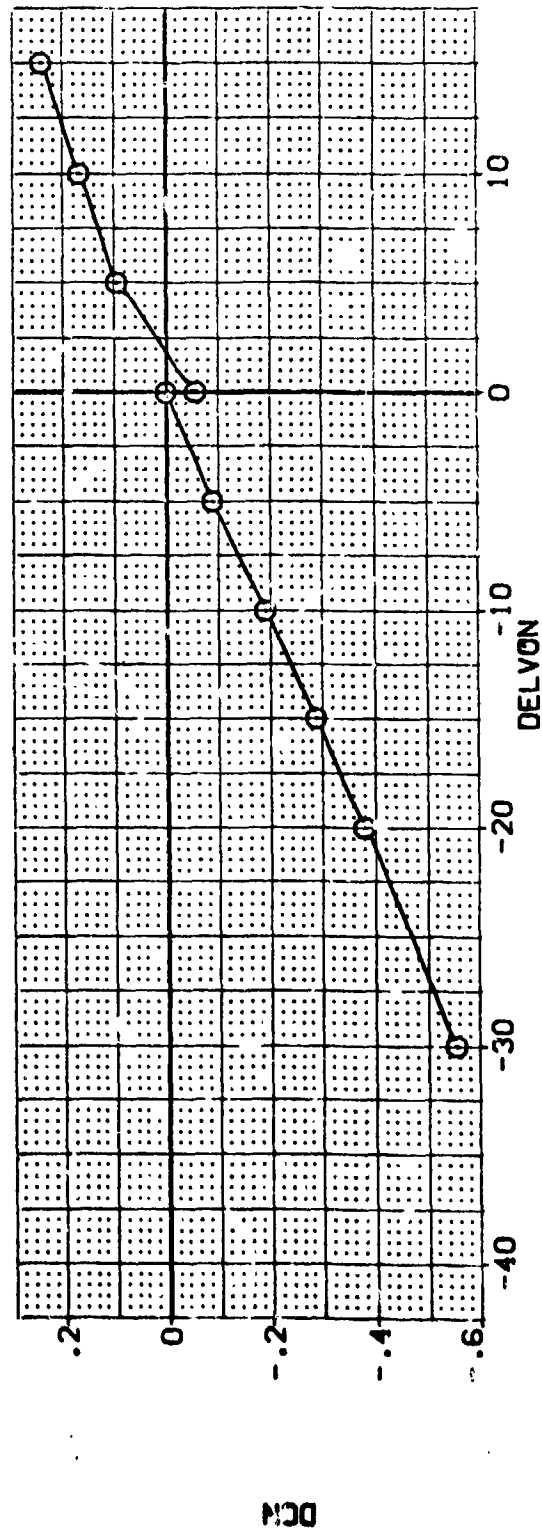
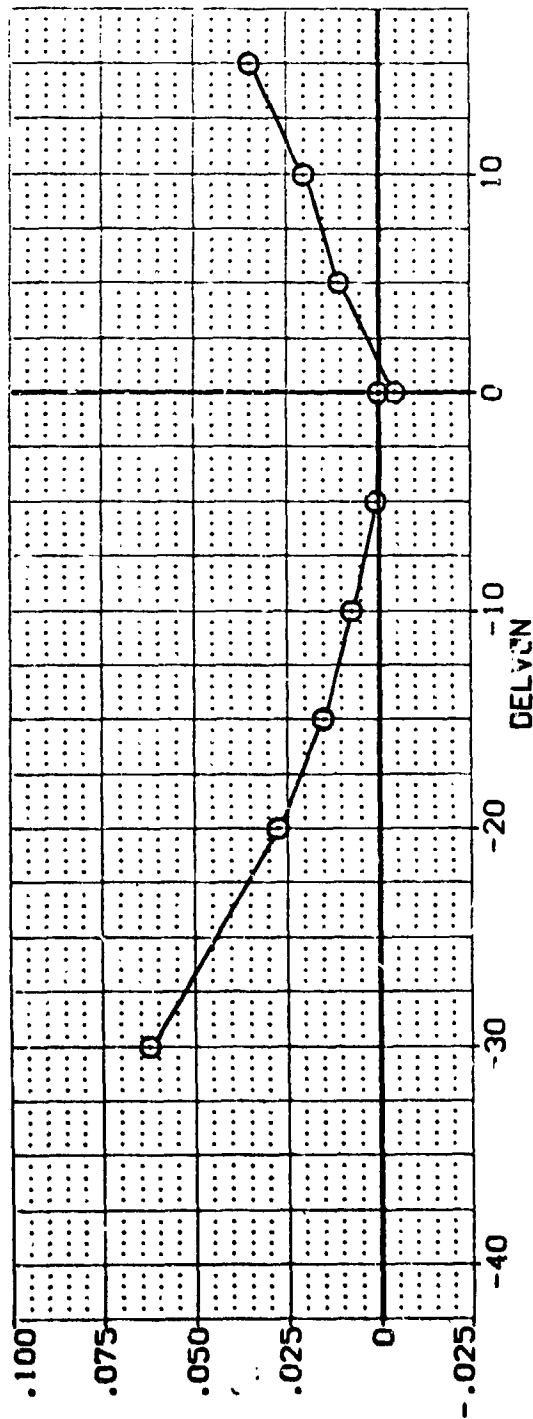


FIG 33 ELEVON EFFECTIVENESS. FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

{ 10Z103 }

## Symptoms

**ALPHA**

**PACH  
BOFLAP  
RUDDER**

```
PARAMETRIC V..UES
      BETA
-12.000
      A1..RON
      .000
      SPDERK
```

DATA SOURCE  
DELTON  
-30.000  
-15.000  
-5.000  
.000  
10.000

DATASET	DELTON	SREF	R
1DZ107	-20.000	LREF	
1DZ108	-10.000	BREF	
1DZ090	0.000	XMRP	
1DZ096	5.000	YMRP	
1DZ098	15.000	ZMRP	
		SCALE	

REFERENCE INFORMATION	SO. FT.	INCHES
4.4119		
19.2299		
37.9359		
43.5974		
.0000		
15.1875		
.0405		

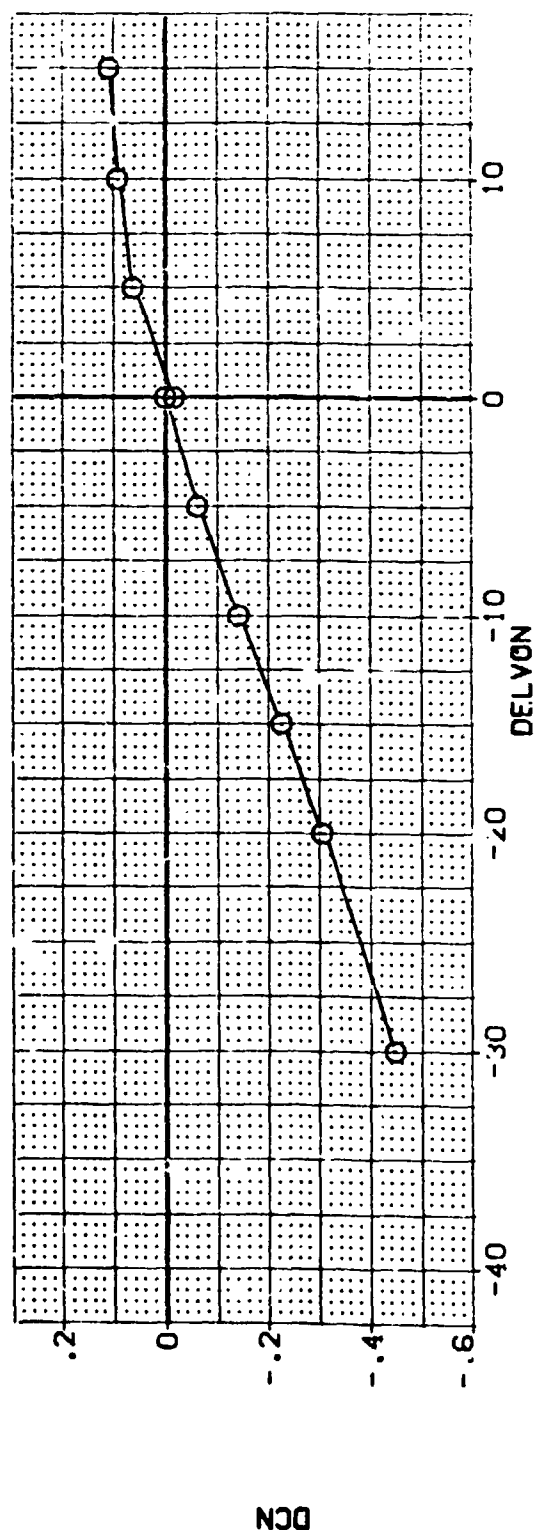
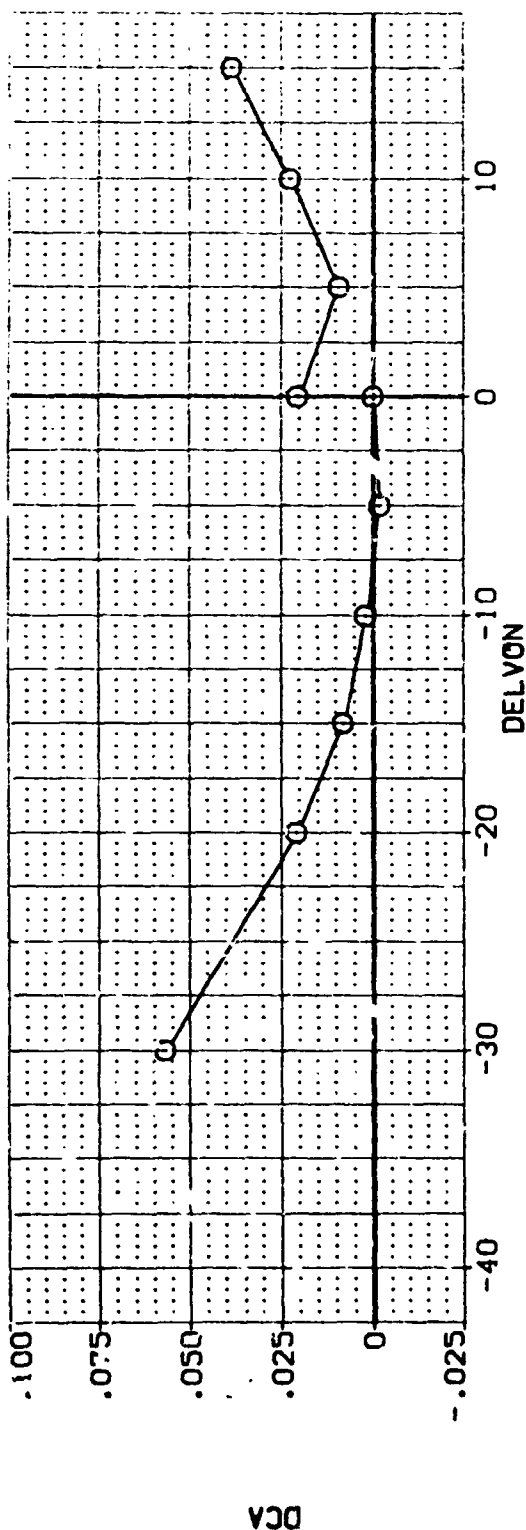


FIG 33 ELEVON EFFECTIVENESS, FREE AIR, GEAR DOWN, 25 DEG RUDDER FLARE

DATA SET SYMBOL: 8020841  
 CONFIGURATION DESCRIPTION: 802080  
 8020801 8020802 8020803 8020804 8020805 8020806 8020807 8020808 8020809 8020810 8020811 8020812 8020813 8020814 8020815 8020816 8020817 8020818 8020819 8020820 8020821 8020822 8020823 8020824 8020825 8020826 8020827 8020828 8020829 8020830 8020831 8020832 8020833 8020834 8020835 8020836 8020837 8020838 8020839 8020840 8020841 8020842 8020843 8020844 8020845 8020846 8020847 8020848 8020849 8020850 8020851 8020852 8020853 8020854 8020855 8020856 8020857 8020858 8020859 8020860 8020861 8020862 8020863 8020864 8020865 8020866 8020867 8020868 8020869 8020870 8020871 8020872 8020873 8020874 8020875 8020876 8020877 8020878 8020879 8020880 8020881 8020882 8020883 8020884 8020885 8020886 8020887 8020888 8020889 8020890 8020891 8020892 8020893 8020894 8020895 8020896 8020897 8020898 8020899 8020900 8020901 8020902 8020903 8020904 8020905 8020906 8020907 8020908 8020909 8020910 8020911 8020912 8020913 8020914 8020915 8020916 8020917 8020918 8020919 8020920 8020921 8020922 8020923 8020924 8020925 8020926 8020927 8020928 8020929 8020930 8020931 8020932 8020933 8020934 8020935 8020936 8020937 8020938 8020939 8020940 8020941 8020942 8020943 8020944 8020945 8020946 8020947 8020948 8020949 8020950 8020951 8020952 8020953 8020954 8020955 8020956 8020957 8020958 8020959 8020960 8020961 8020962 8020963 8020964 8020965 8020966 8020967 8020968 8020969 8020970 8020971 8020972 8020973 8020974 8020975 8020976 8020977 8020978 8020979 8020980 8020981 8020982 8020983 8020984 8020985 8020986 8020987 8020988 8020989 8020990 8020991 8020992 8020993 8020994 8020995 8020996 8020997 8020998 8020999 8021000

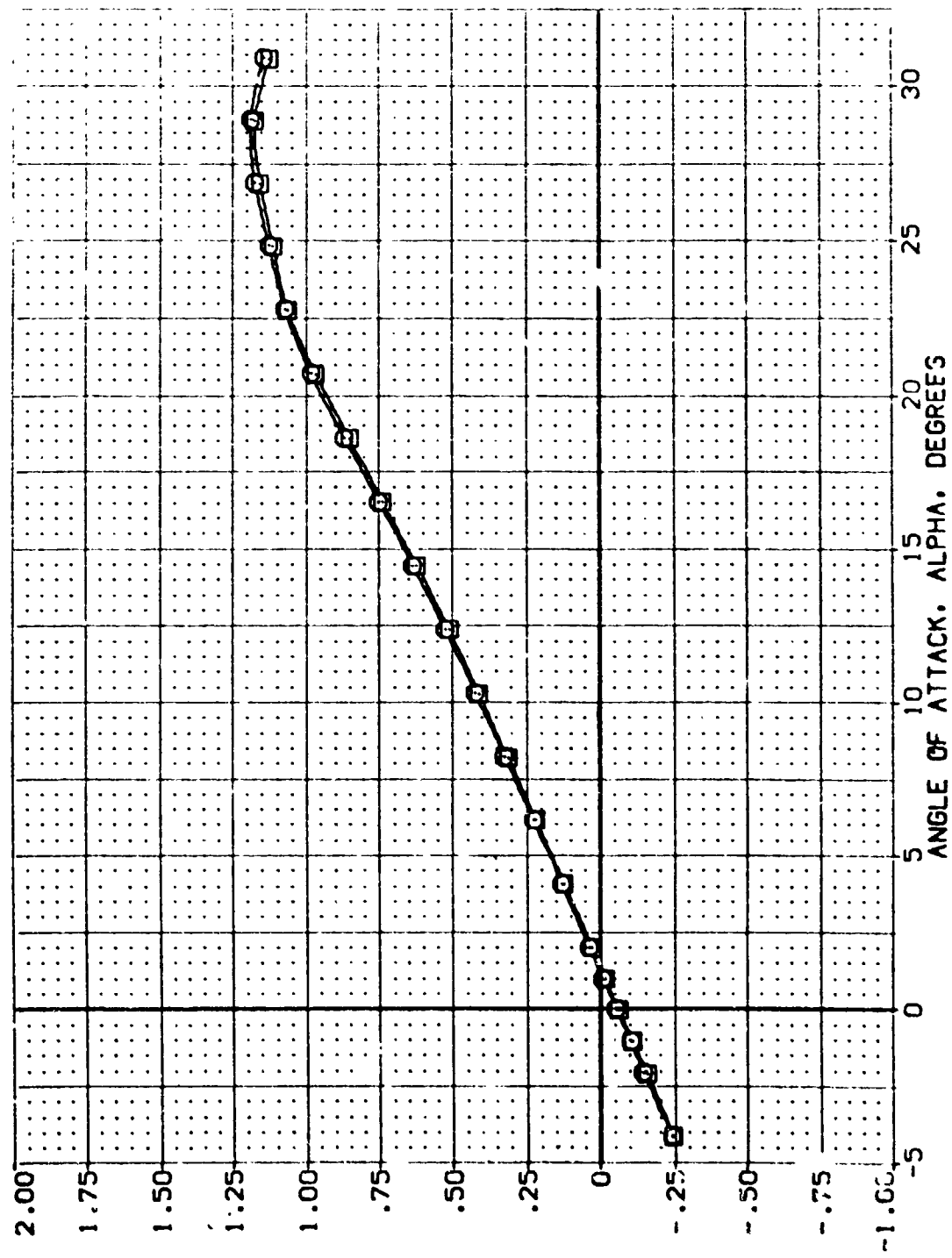


FIG 34 EFFECT OF VERTICAL TAIL FLARE, FREE AIR, GEAR DOWN, ELEVON = 0  
 (A)MACH = .20

DATA SET SYMBOL (B02094) (B02090) B

CONFIGURATION DESCRIPTION

04628 B26C9G154778 V116E20V8R5X9  
04628 B26C9G154778 V116E20V8R5X9

ELEVON SPOBRK BOFLAP RUDDER

.000 .000 .000  
.000 .000 .000  
25.000 -12.000 .000

REFERENCE INFORMATION  
SREF 4.4118 SO.FT  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0003 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

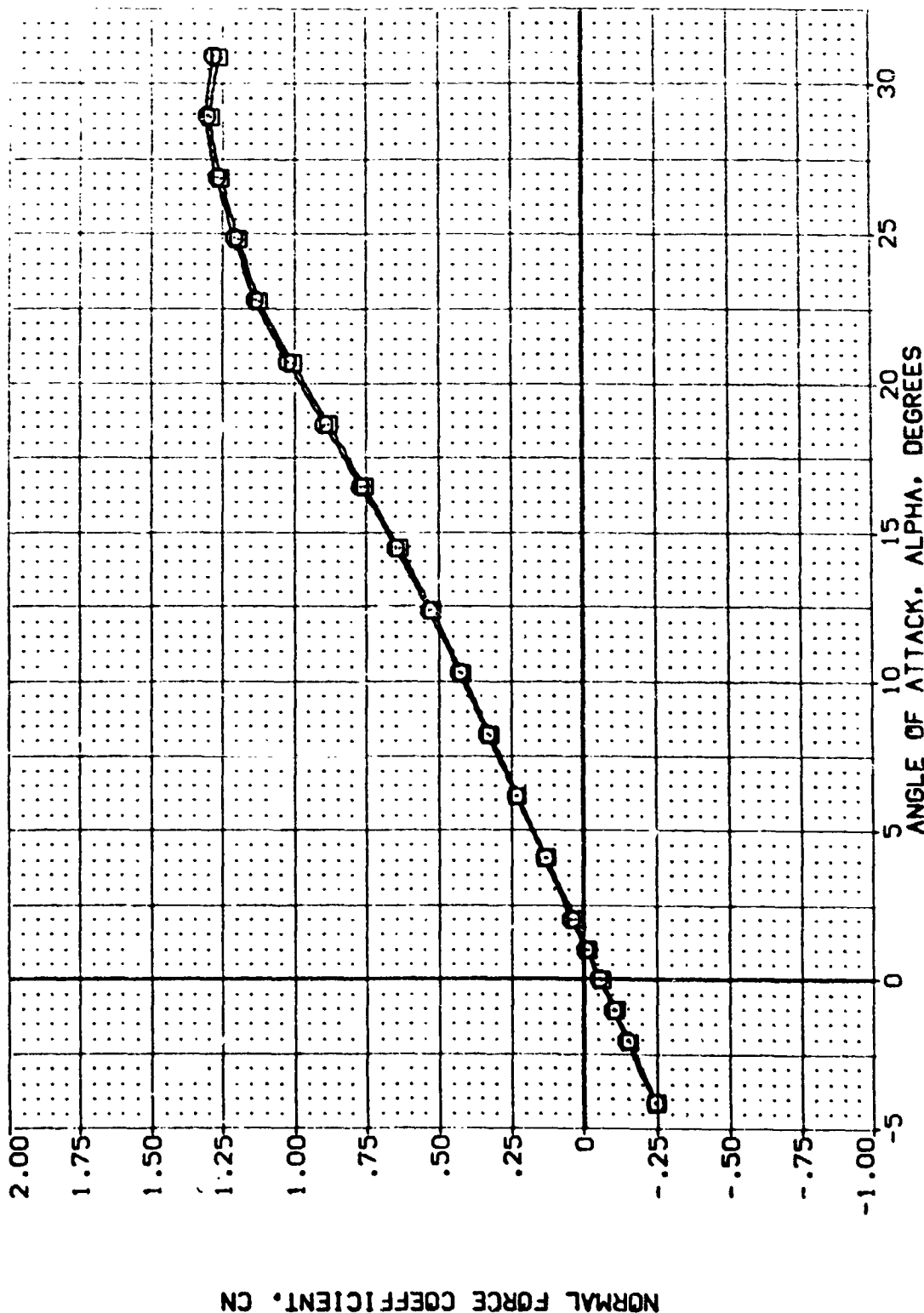


FIG 34 EFFECT OF VERTICAL TAIL FLARE. FREE AIR, GEAR DOWN, ELEVON = 0

(\*)MACH = .2)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B01204)	QAS28 B26C9G SM778 V116E28V8RSXS	.000	.000	-12.000	.000	SREF 4.4119 SQ.FT
(B02090)	QAS28 B26C9G SM778 V116E28V8RSXS	.000	25.000	-12.000	.000	LREF 19.2298 INCHES
						BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

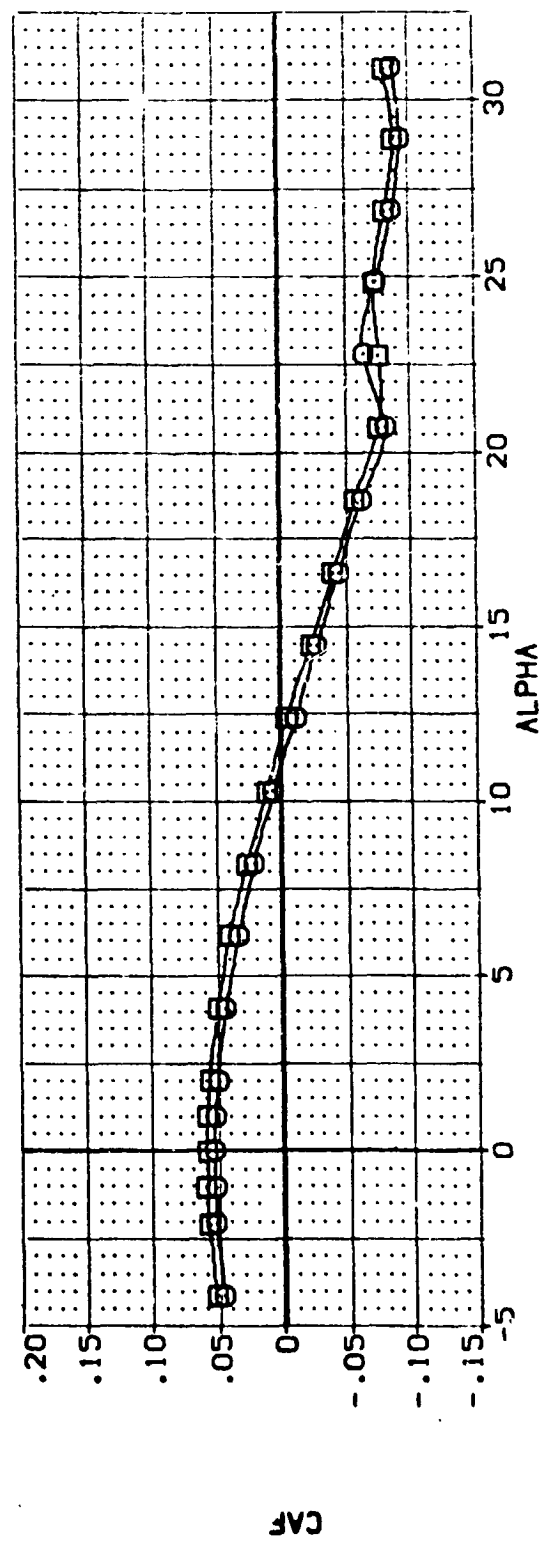
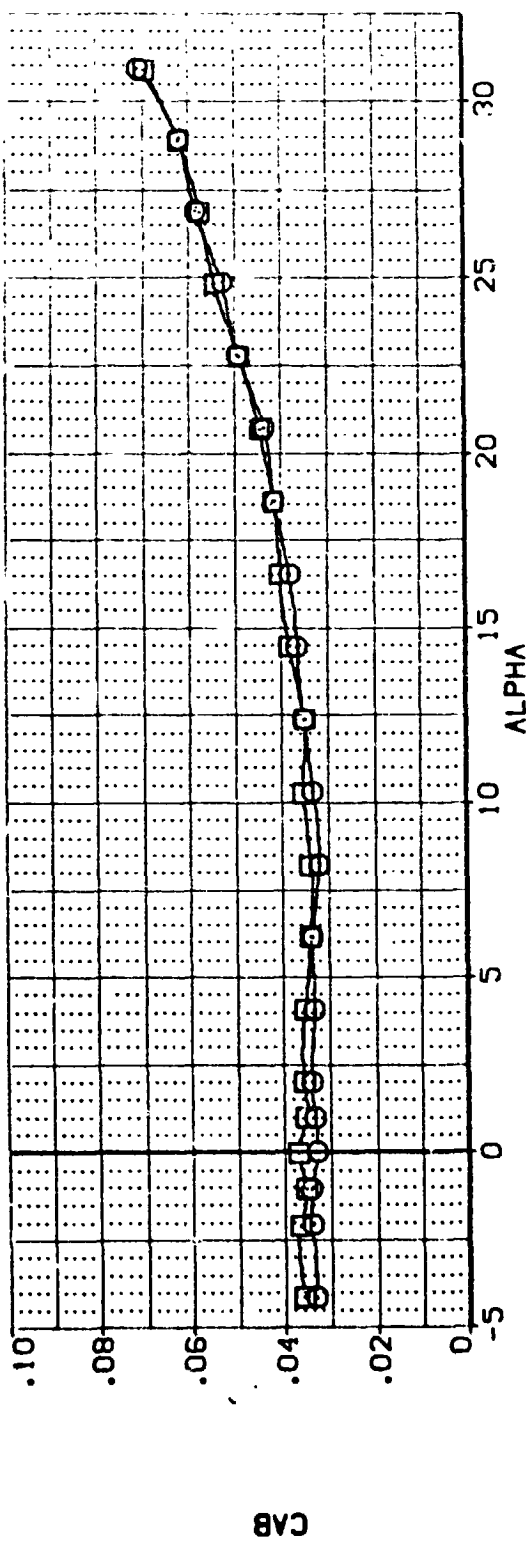


FIG 34 EFFECT OF VERTICAL TAIL FLARE, FREE AIR, GEAR DOWN, ELEVON = 0  
 (A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (800004) 04628 826C9G15H7F8 V116E28V8K5X9  
 (800050) 04628 826C9G15H7F8 V116E28V8K5X9

ELEVON SPOBRK BOFLAP RUDDER  
 .000 .000 .000  
 .000 .000 .000  
 .000 .000 .000  
 .000 .000 .000

REFERENCE INFORMATION  
 SREF 4.4119 SO.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

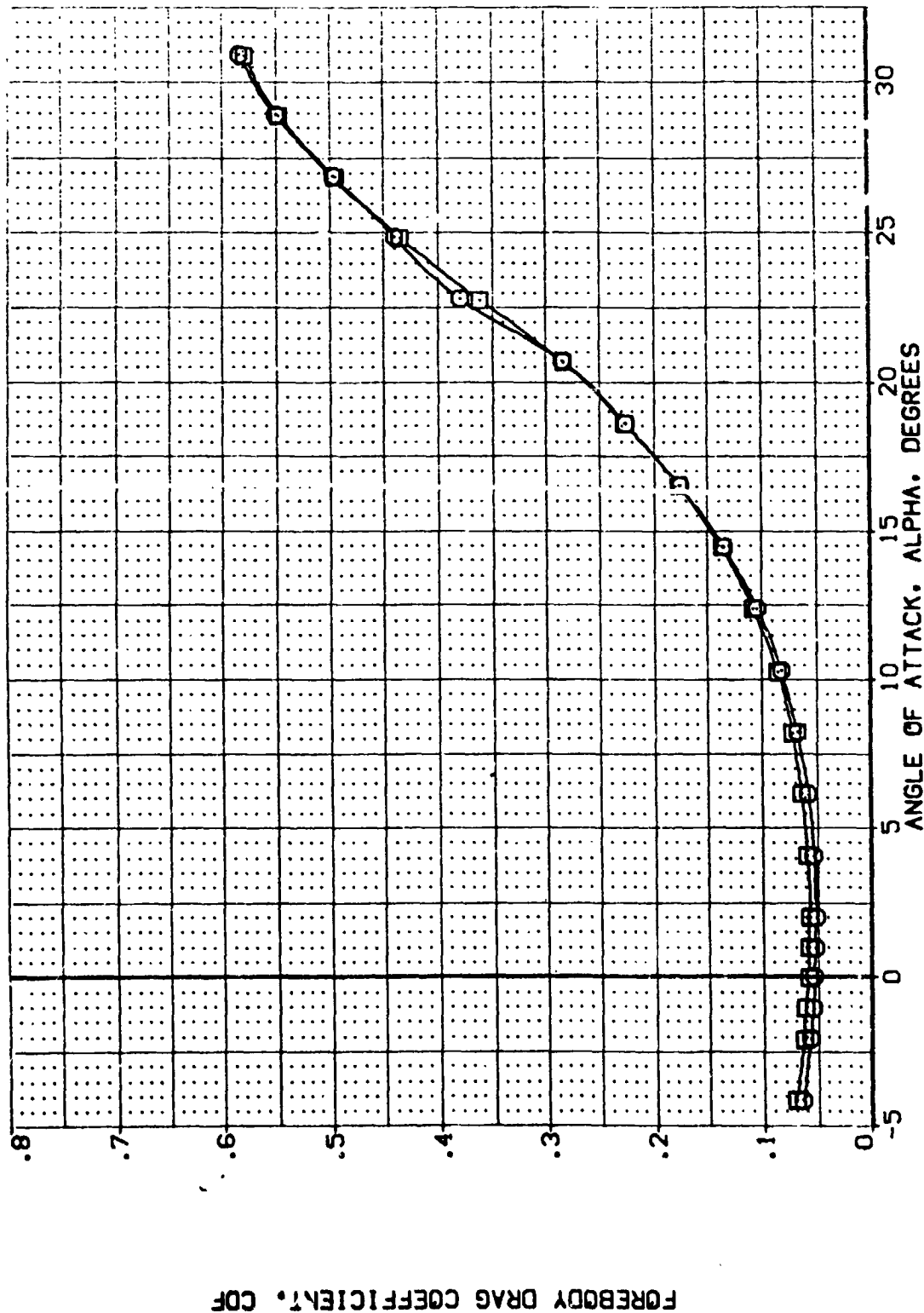


FIG 34 EFFECT OF VERTICAL TAIL FLARE, FREE AIR, GEAR DOWN, ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL (B07084) (B07080)  CONFIGURATION DESCRIPTION OAS28 B26C50154778 V116E28V8RSX9 OAS28 B26C50154778 V116E28V8RSX9

ELEVON .000 .000 .000 SPDRK .000 .000 .000 BOFLAP -12.000 -12.000 .000 RUDDER .000 .000 .000 REFERENCE INFORMATION SREF 4.4119 SQ.FT. LREF 19.2299 INCHES BREF 37.9359 INCHES XHRP 43.5974 INCHES YHRP .0000 INCHES ZHRP 15.1875 INCHES SCALE .0405

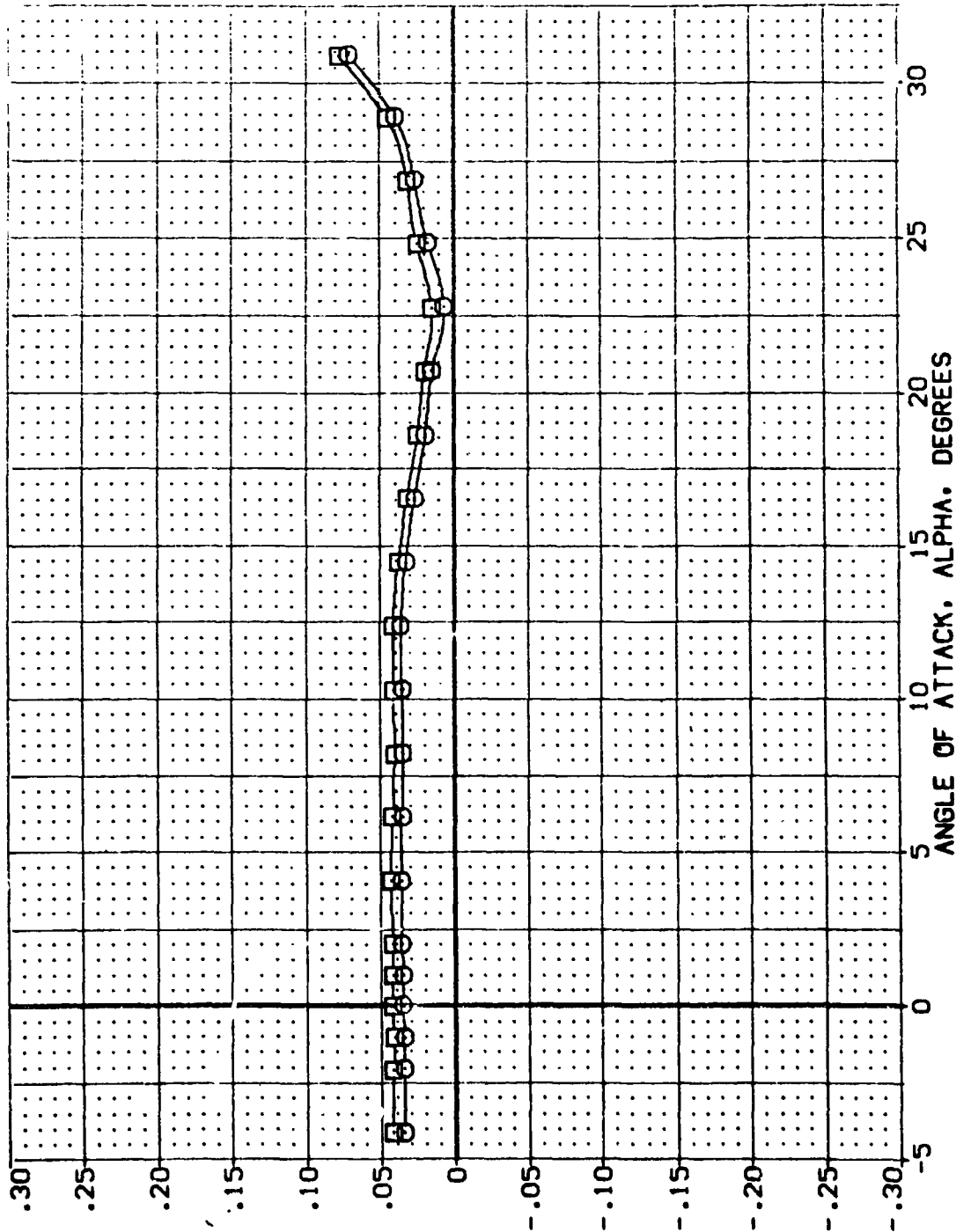


FIG 34 EFFECT OF VERTICAL TAIL FLARE, FREE AIR, GEAR DOWN. ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02094) 0A628 B26C5G15W7F8 V116E28V8R5X9  
 (R02090) 0A628 B26C5G15W7F8 V116E28V8R5X9

ELEVON SPOBRK BOFLAP RUDDER REFERENCE INFORMATION  
 .000 .000 -12.000 .000 SREF 4.4119 SO.FT.  
 .000 25.000 -12.000 .000 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

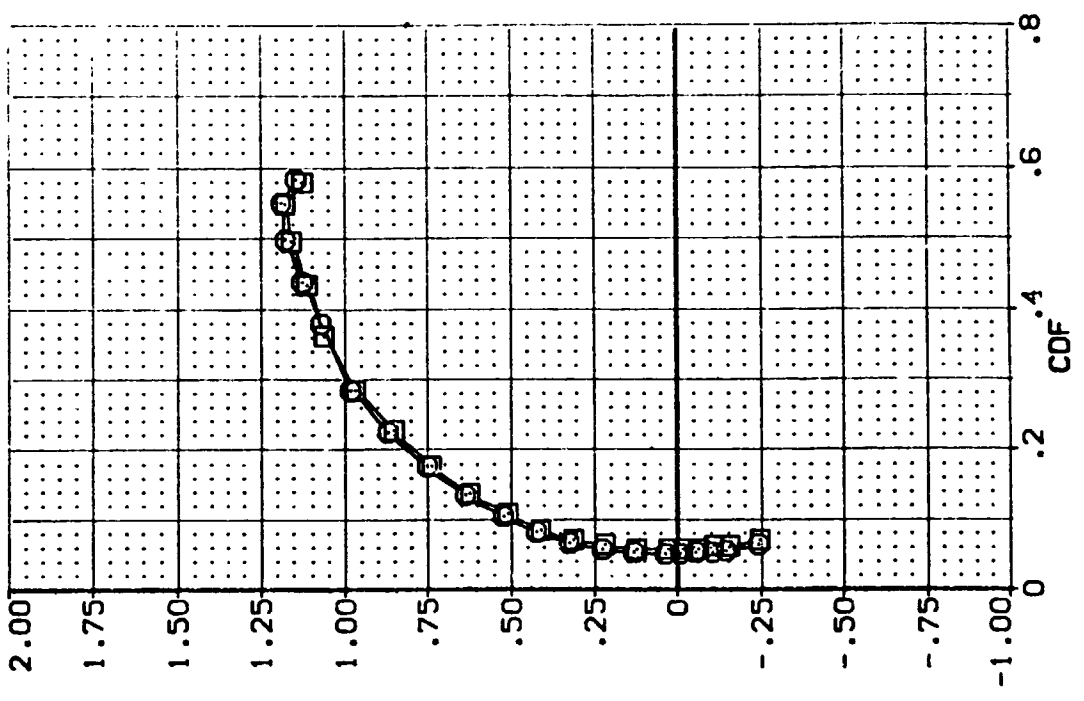
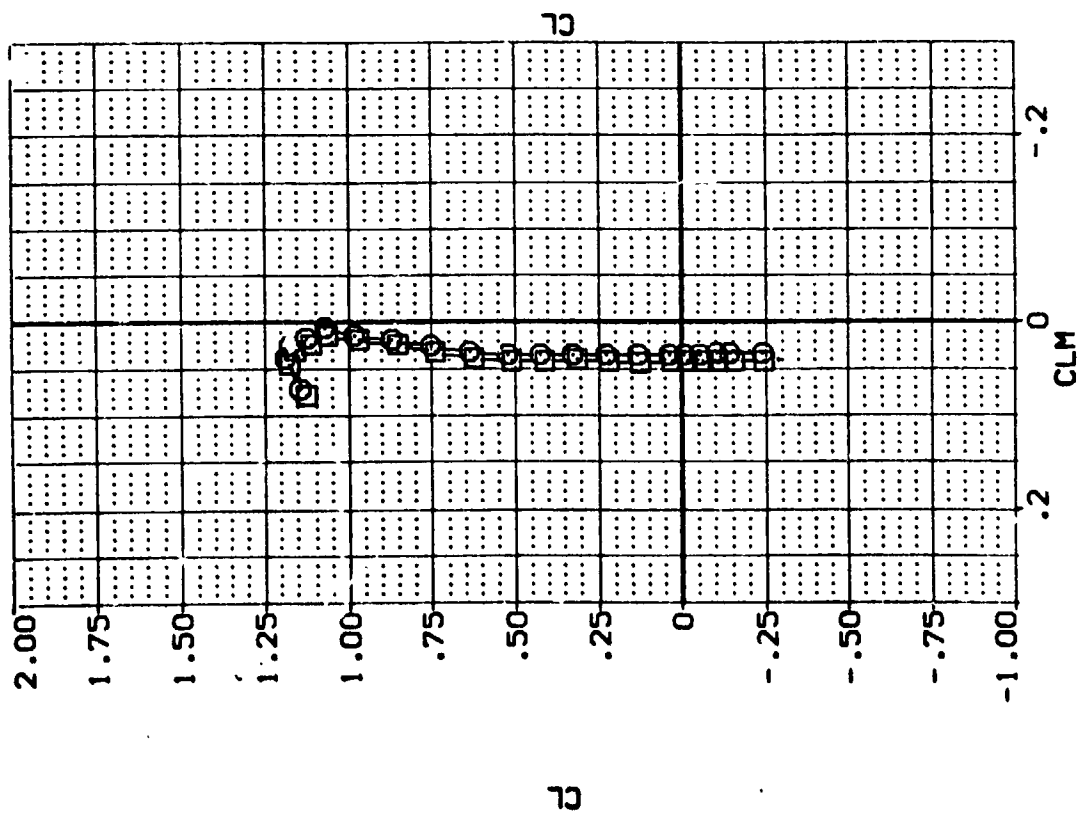


FIG 34 EFFECT OF VERTICAL TAIL FLARE, FREE AIR, GEAR DOWN, ELEVON = 0

MAJ MACH = .20

(1)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BDFLAP	RUDDER	REFERENCE INFORMATION
(802094)	0A528 B26C5G15H7B V116E28V8RSXS	.000	.000	-12.000	.000	SREF 4.4119 SO.FT.
(802090)	0A528 B26C5G15H7B V116E28V8RSXS	.000	25.000	-12.000	.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0001 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 INCHES

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCPL, FRACTION BODY LENGTH

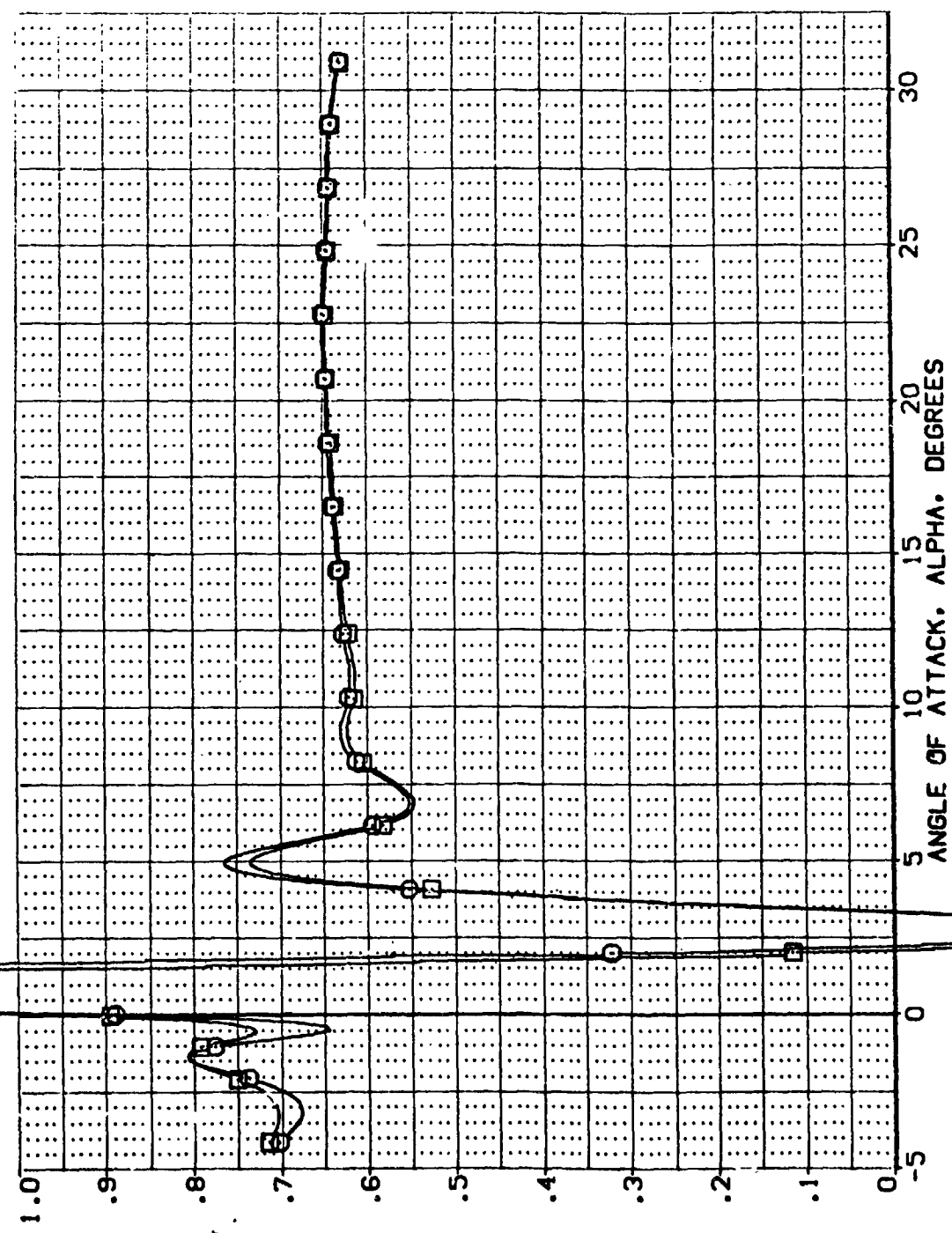


FIG 34 EFFECT OF VERTICAL TAIL FLARE, FREE AIR, GEAR DOWN, ELEVON = 0  
(A)MACH = .20

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		SPDBRK		BOFLAP		RUDDER		REFERENCE INFORMATION	
(802084)	Q	0A628	B26C5G15MTF-8	V116E28V8K5X9	.000	.000	.000	-12.000	.000	SREF	4.4119	SO.FT.	
(802090)		0A628	B26C5G15MTF-8	V116E28V8K5X9	.000	25.000	.000	-12.000	.000	LREF	19.2299	INCHES	
										BREF	37.9359	INCHES	
										XMRP	43.5974	INCHES	
										YMRP	.0000	INCHES	
										ZMRP	15.1875	INCHES	
										SCALE	.0405	SCALE	

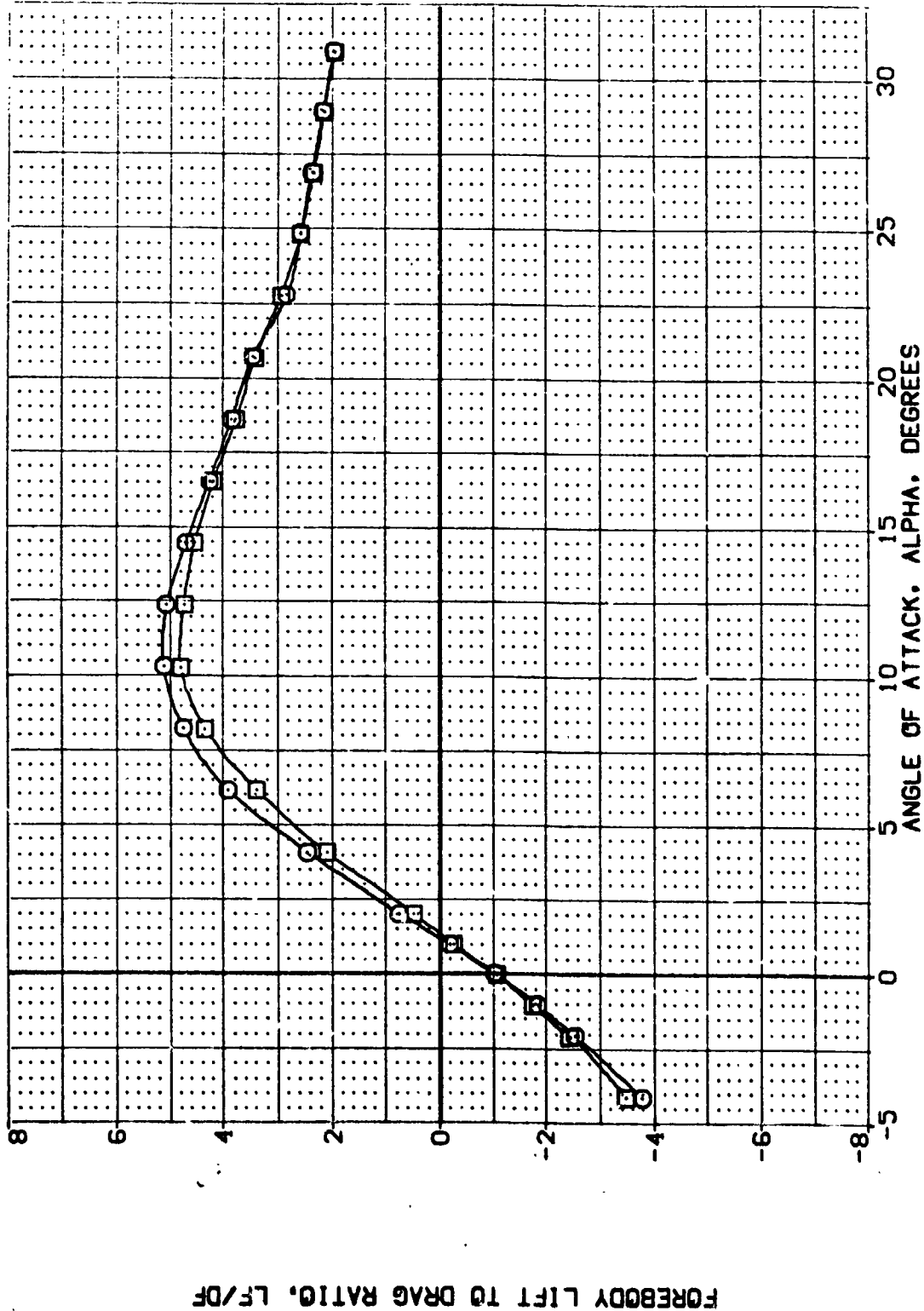


FIG 34 EFFECT OF VERTICAL TAIL FLARE, FREE AIR, GEAR DOWN, ELEVON = 0

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	H/BW	REFERENCE INFORMATION
(ADZ078)	0A628 826C9G1 5M7F 8J62V 16E28V8R5X10	.000	.000	.000	.285	SREF 4.4119 SQ.FT. INCHES
(ADZ079)	0A628 826C9G1 5M7F 8J62V 16E28V8R5X10	5.000	.000	.000	.285	LREF 19.2299 INCHES
(ADZ080)	0A628 826C9G1 5M7F 8J62V 16E28V8R5X10	10.000	.000	.000	.285	BREF 37.9359 INCHES
(ADZ081)	0A628 826C9G1 5M7F 8J62V 16E28V8R5X10	15.000	.000	.000	.285	XMRP 43.5974 INCHES
(ADZ082)	0A528 826C9G1 5M7F 8J62V 16E28V8R5X10	20.000	.000	.000	.285	YMRP 15.1875 INCHES
						SCALE .0405

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

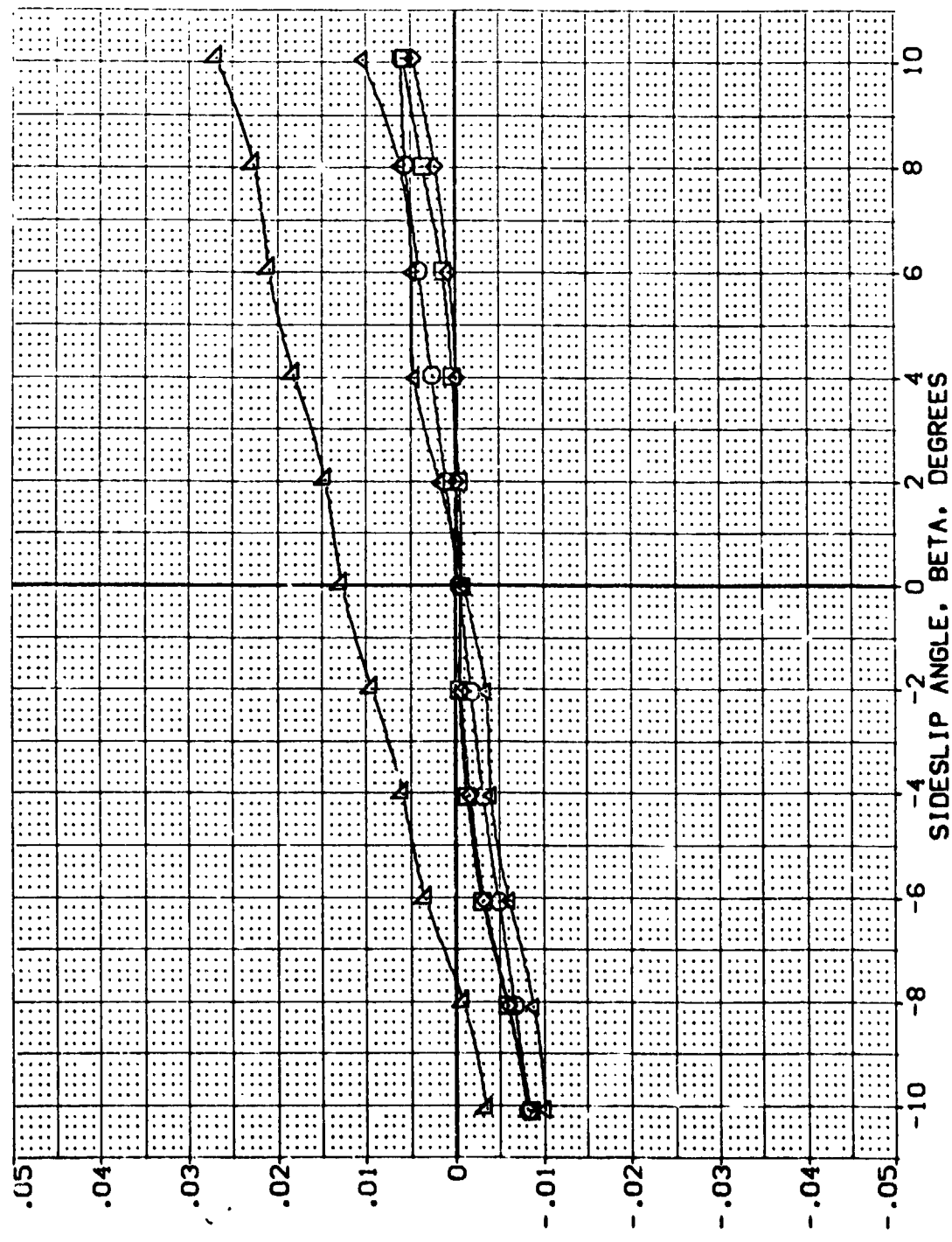


FIG 35 LAT/OIR STABILITY, OVERWING PODDED ENGINES, H/BW = 0.285, ELEVON = 0  
(A)MACH = .20 PAGE 379



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	H/BW	REFERENCE INFORMATION
(A02078)	0A628 B26C9G 5H7F8J62V 16E28V8RSX10	.000	.000	.000	.285	SREF 4.4119 SO.FT.
(A02079)	0A628 B26C9G 5H7F8J62V 16E28V8RSX10	5.000	.000	.000	.285	LREF 19.2299 INCHES
(A02080)	0A628 B26C9G 5H7F8J62V 16E28V8RSX10	10.000	.000	.000	.285	BREF 37.9359 INCHES
(A02081)	0A628 B26C9G 5H7F8J62V 16E28V8RSX10	15.000	.000	.000	.285	XMRP 43.5974 INCHES
(A02082)	0A628 B26C9G 5H7F8J62V 16E28V8RSX10	20.000	.000	.000	.285	YMRP 15.0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

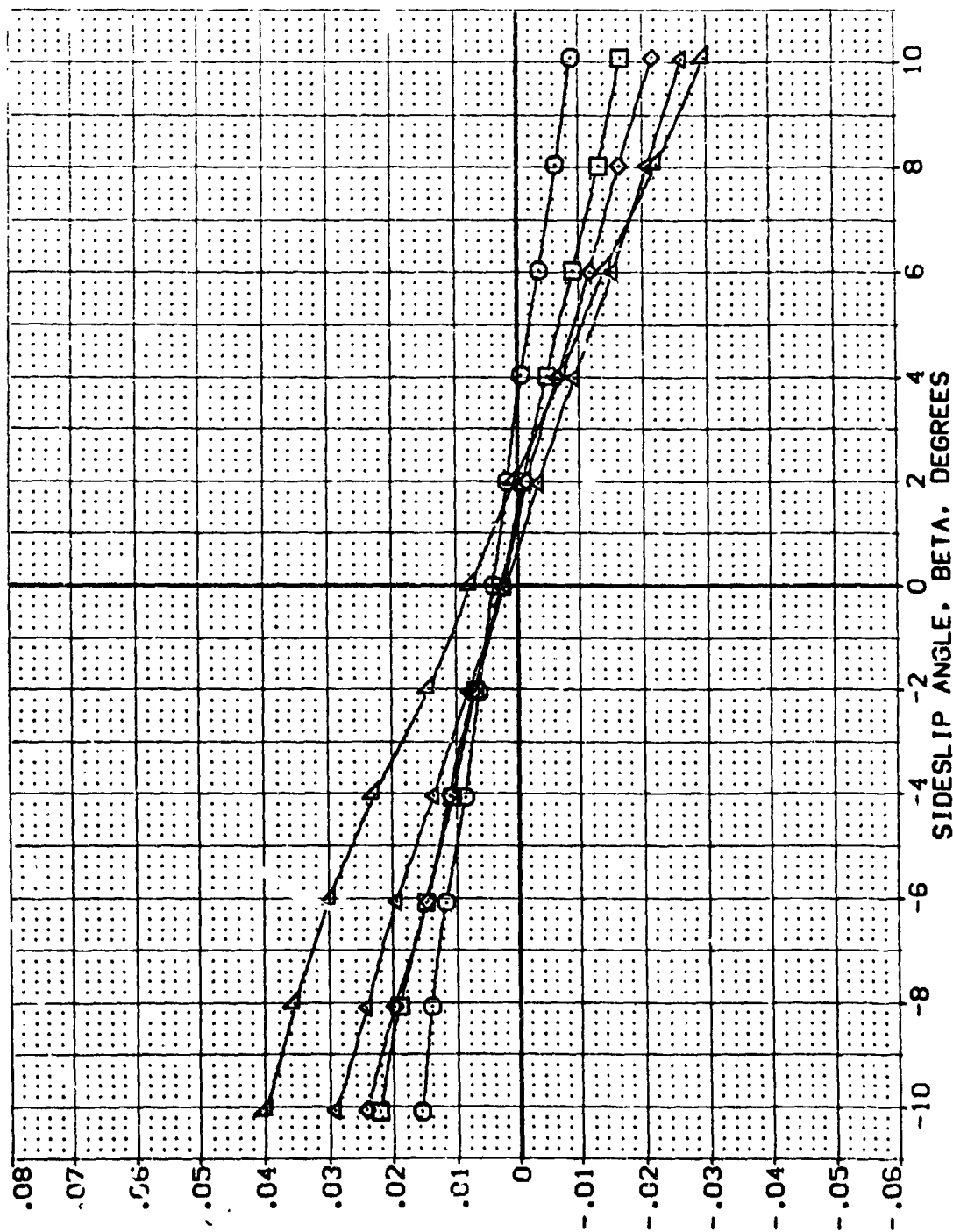


FIG 35 LAT/DIR STABILITY, OVERWING PODDED ENGINES, H/BW = 0.285, ELEVON = 0  
(A)MACH = .20





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	H/BW	REFERENCE INFORMATION
(A02078)	0A628 B26C9G1547F8J62V116E28V8RSX10	0.00	.000	.000	.285	SREF 4.4119 SO.FT.
(A02079)	0A628 B26C9G1547F8J62V116E28V8RSX10	5.000	.000	.000	.285	LREF 19.2299 INCHES
(A02080)	0A628 B26C9G1547F8J62V116E28V8RSX10	10.000	.000	.000	.285	BREF 37.9359 INCHES
(A02081)	0A628 B26C9G1547F8J62V116E28V8RSX10	15.000	.000	.000	.285	XMRP 43.5974 INCHES
(A02082)	0A628 B26C9G1547F8J62V116E28V8RSX10	20.000	.000	.000	.285	YMRP 15.1875 INCHES
						ZMRP .0405 SCALE

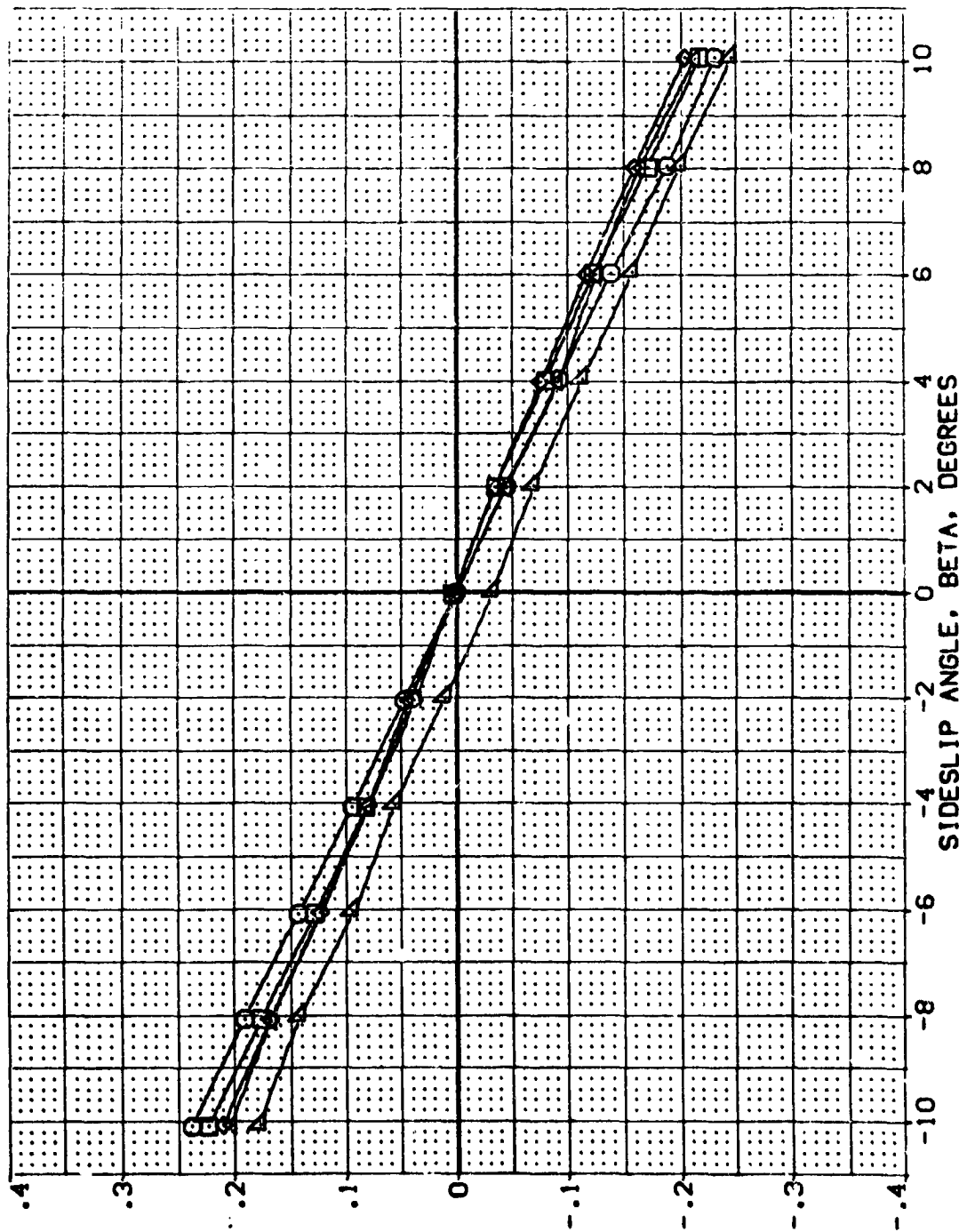


FIG 35 LAT/DIR STABILITY, OVERWING PODDED ENGINES, H/BW = 0.285, ELEVON = 0  
(A)MACH = .20 PAGE 381

(C0Z078)

0A628 B26C9G15M7F8J62W116E28V8R5X10

SYMBOL  
ELEVON  
0

PARAMETRIC VALUES  
MACH .200  
AILERON .000  
SPDRK .000  
BDFLAP -12.000  
RUDDER .000  
H/BW .285

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYMBET, PER DEGREE

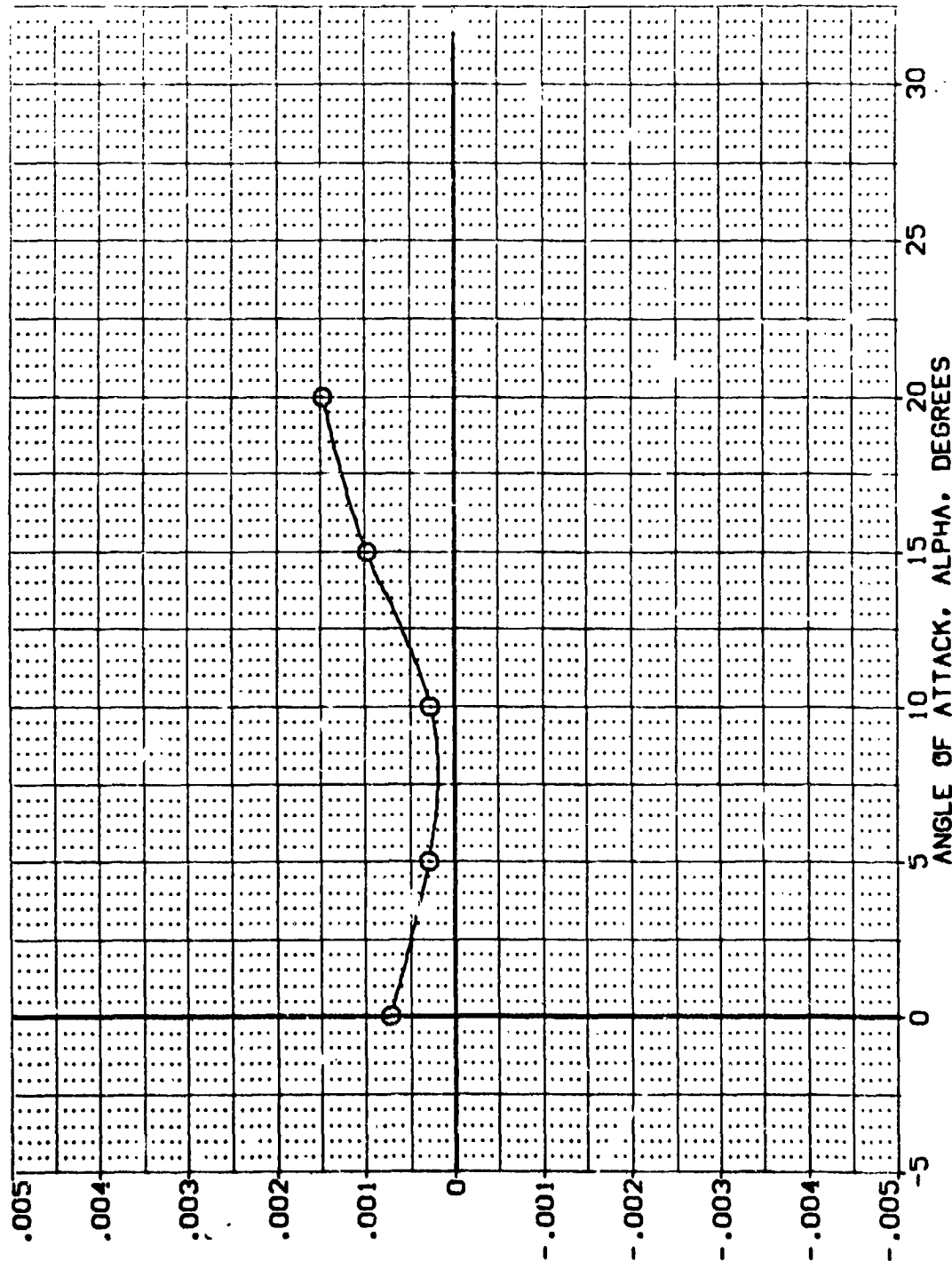


FIG 35 LAT/DIR STABILITY, OVERWING PODDED ENGINES. H/BW = 0.285, ELEVON = 0

SYMBOL  
O

ELEVON  
.000

MACH  
A11RON  
SPDRX

PARAMETRIC VALUES  
.200 BOFLAP  
.000 RUDDER  
.000 H/BW

-12.000  
.000  
.785

(CDZ078)

0A628 B26C9G15M7F8J62W116E28V8R5X10

REFERENCE INFORMATION  
SREF 4.4119 SO.FT.  
LREF 19.2299 INCHES  
BREF 37.5359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

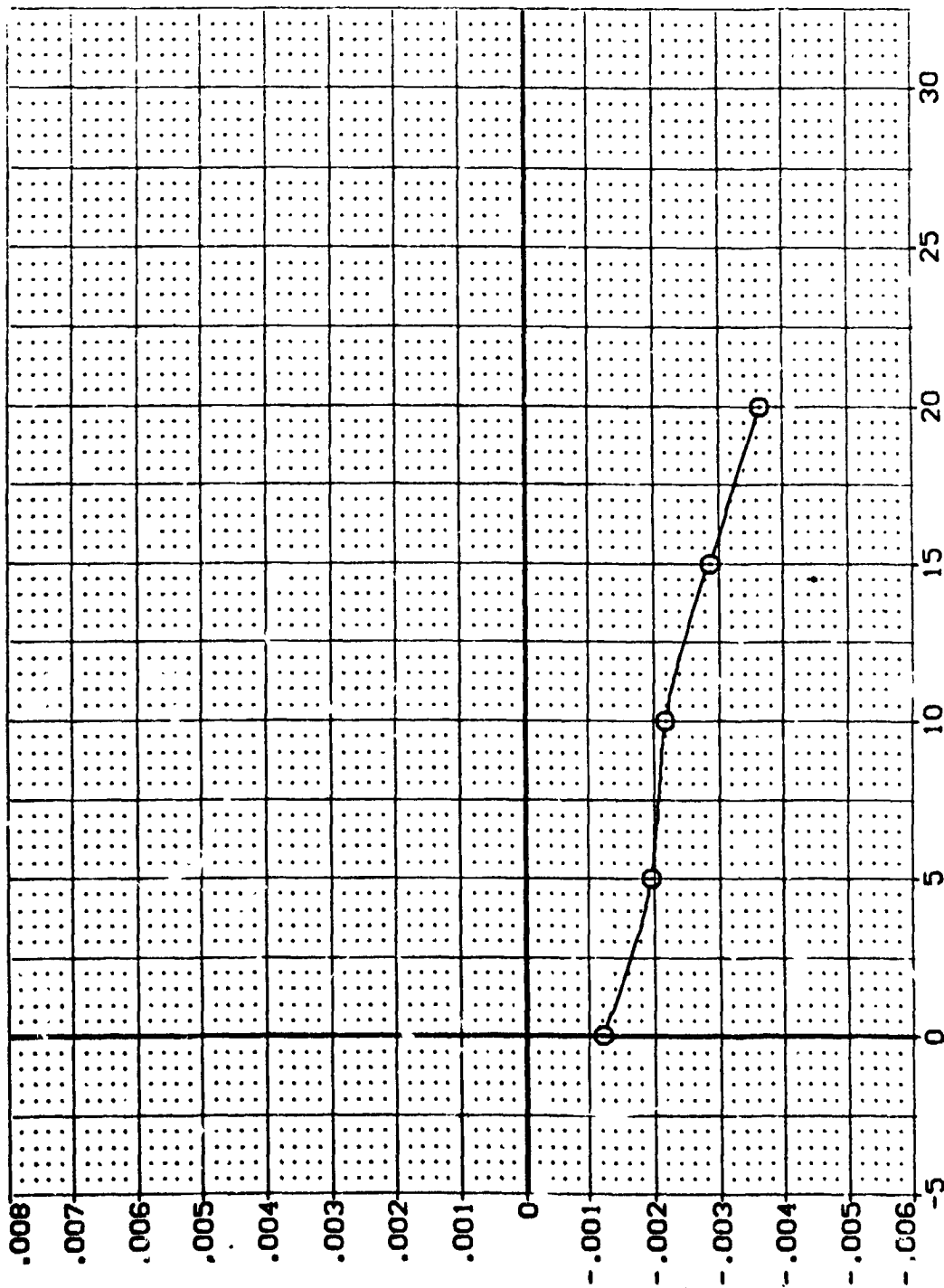


FIG 35 LAT/CIR STABILITY, OVERWING PODDED ENGINES, H/BW = 0.285, ELEVON = 0

0A62B B26C9G15M7F8J62W1 16E28V8R5X10

REFERENCE INFORMATION	
4.4119	50.FT.
19.2299	INCHES
37.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

SCALE  
ZMRP  
YMRP  
XMRP  
BREF  
LREF  
SREF

WACH	.200	BD/FLAP	-12.000
WILLOW	.000	FL/DER	.000
SP/BRK	.000	M/6V	.265

**O**

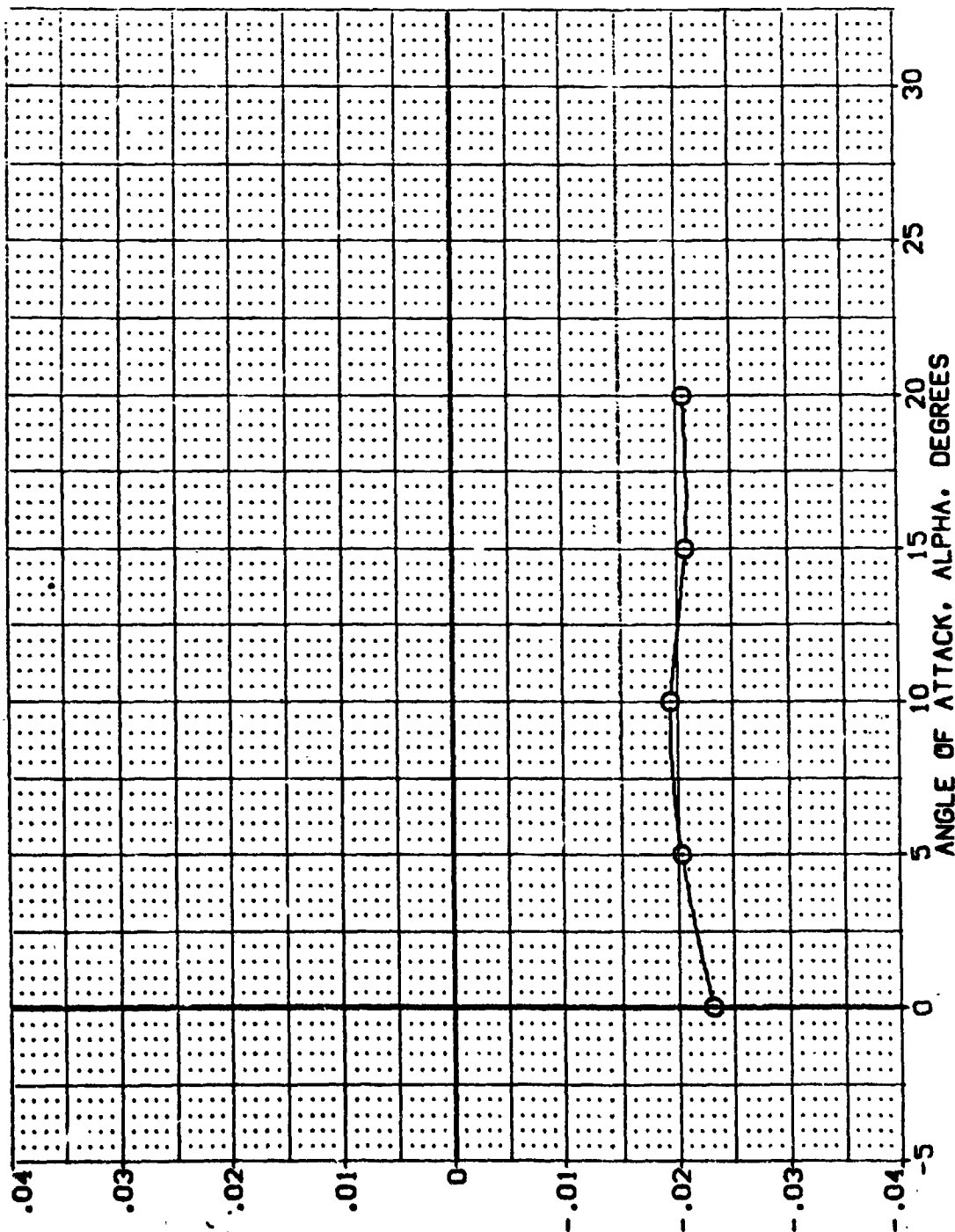


FIG 35 LAT/DIR STABILITY, OVERWING PODDED ENGINES,  $H/BW = 0.285$ ,  $ELEVON = 0$

**SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE**



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (800007) 8 04528 82503512407845241162204085X10  
 (800008) 8 04528 82503512407845241162204085X10

ELEVON SPOONK BOFLAP RUDDER REFERENCE INFORMATION  
 ELEVON .000 .000 .000 SREF 4.4119 SQ.FT.  
 SPOONK .000 .000 .000 LREF 19.2299 INCHES  
 BOFLAP .000 .000 .000 BREF 37.9559 INCHES  
 RUDDER .000 .000 .000 XREF 43.5974 INCHES  
 REFERENCE INFORMATION  
 YREF .0000 INCHES  
 ZREF .0000 INCHES  
 SCALE 15.1875 INCHES  
 .0405 SCALE

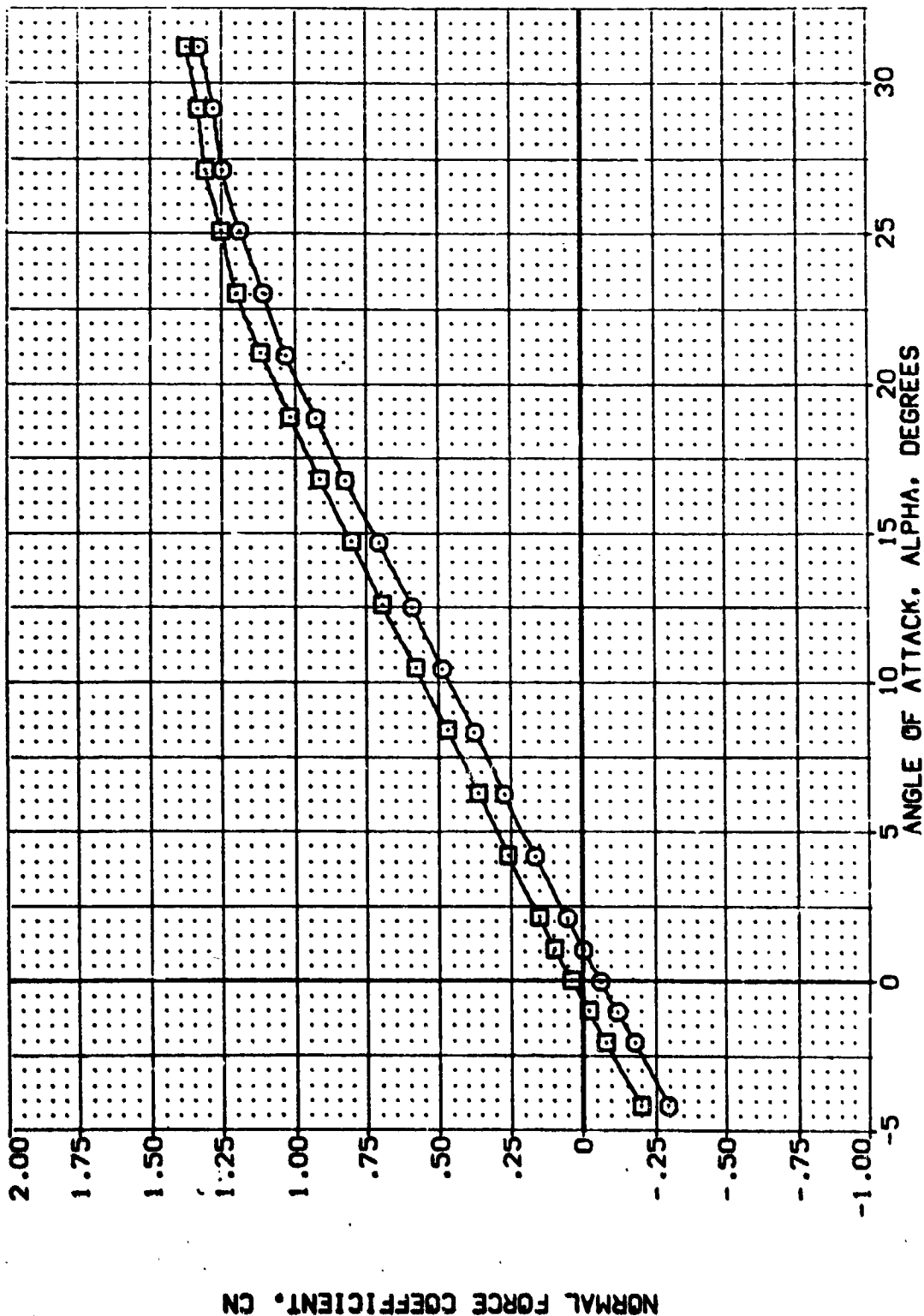


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING PODDED ENGINES

(A)MACH = .20

DATA SET SWERL. CONFIGURATION DESCRIPTION

DATA SET	SWERL	CONFIGURATION DESCRIPTION	ELEVON	SPOROK	BOFLAP	RUDDER	REFERENCE INFORMATION
000077	8	0000001 SWERL SWERL 10	0.000	0.000	-12.000	0.000	REF 4.4119 SQ. FT. INCHES
000000	8	0000001 SWERL SWERL 10	0.000	0.000	-12.000	0.000	REF 19.2299 INCHES
000000	8	0000001 SWERL SWERL 10	0.000	0.000	-12.000	0.000	REF 37.9359 INCHES
000000	8	0000001 SWERL SWERL 10	0.000	0.000	-12.000	0.000	REF 43.5974 INCHES
000000	8	0000001 SWERL SWERL 10	0.000	0.000	-12.000	0.000	REF 15.1875 INCHES
000000	8	0000001 SWERL SWERL 10	0.000	0.000	-12.000	0.000	REF 0.0405 INCHES

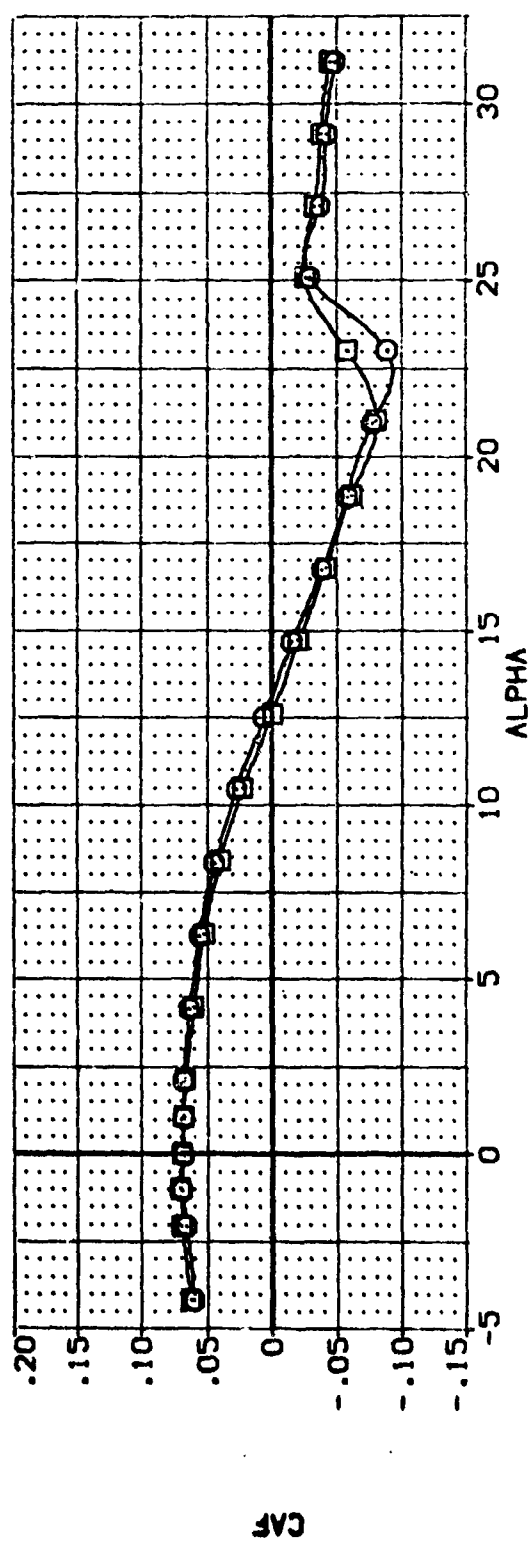
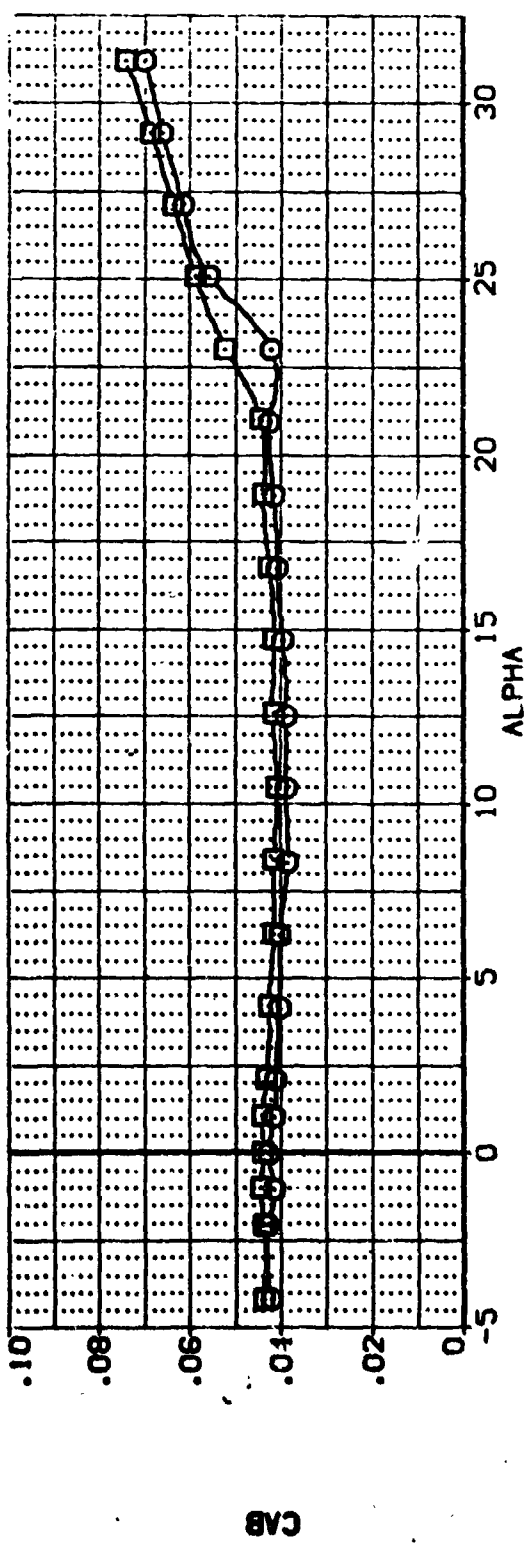


FIG 36 ELEVON EFFECTIVENESS. H/BW = 0.285. OVERWING POODED ENGINES  
 (A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

Q4628	828C36154778J62V116E28V85X10	SREF	4.4119	50.FT.
Q4628	828C36154778J62V116E28V85X10	LREF	19.2299	INCHES
		BREF	37.9359	INCHES
		XMRP	43.5974	INCHES
		YMRP	15.0000	INCHES
		ZMRP	15.1875	INCHES
		SCALE	.0405	SCALE

ELEVON SPOILER BOFLAP RUDDER

.000	.000	.000
5.000	-12.000	.000

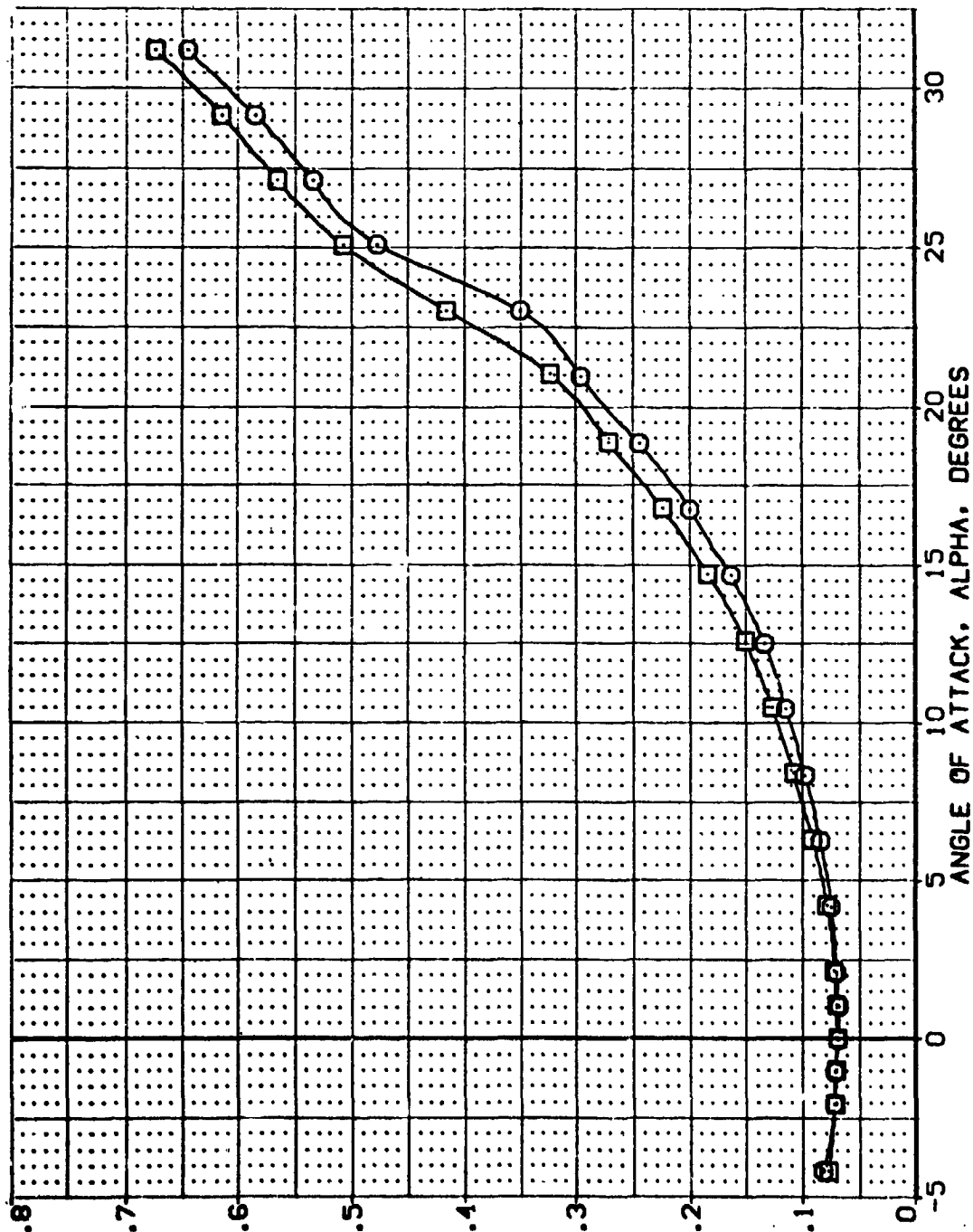


FIG 36 ELEVON EFFECTIVENESS. H/BW = 0.285, OVERWING POODED ENGINES

(A)MACH = .20



DATA SET SYMBOL: 04628 B26C3G15W7F8U6ZV116E29V86SK10  
 (802077) 04628 B26C3G15W7F8U6ZV116E29V86SK10  
 (802063)

CONFIGURATION DESCRIPTION

ELEVON SPORWK BDFLAP RUDDER  
 .000 .000 .000  
 5.000 -12.000 -12.000

REFERENCE INFORMATION  
 SREF 4.4119 50. FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

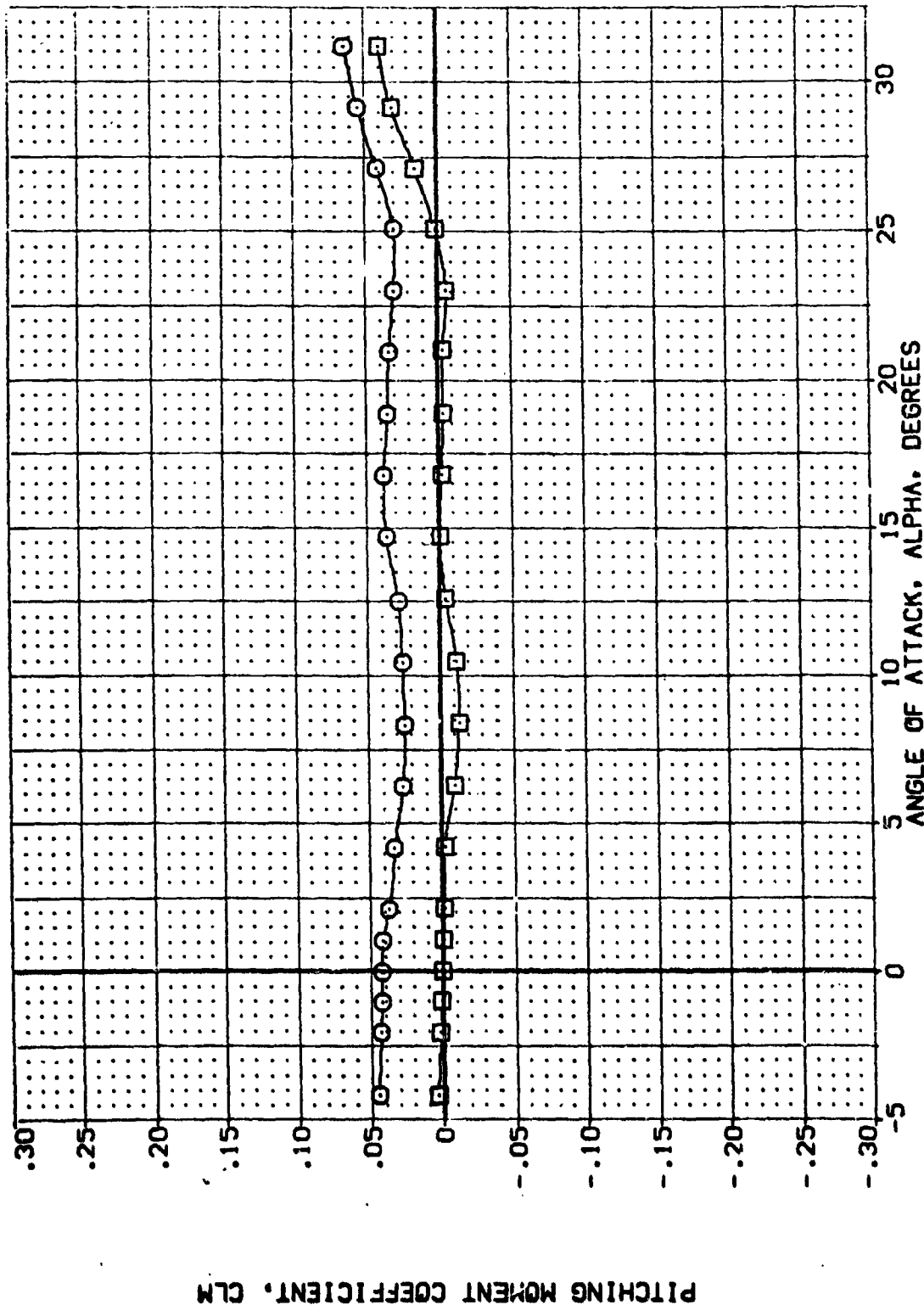


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES

(A)MACH = .20

DATA SET SYMBOL: 04628 828C361547F9462V116E28V85X10  
 (800077) 04628 828C361547F9462V116E28V85X10  
 (800063)

CONFIGURATION DESCRIPTION

ELEVON SPDRK BOFLAP RUDDER  
 .000 .000 -12.000 .000  
 5.000 .000 -12.000 .000

REFERENCE INFORMATION  
 SREF 4.4119 50. FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XPRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

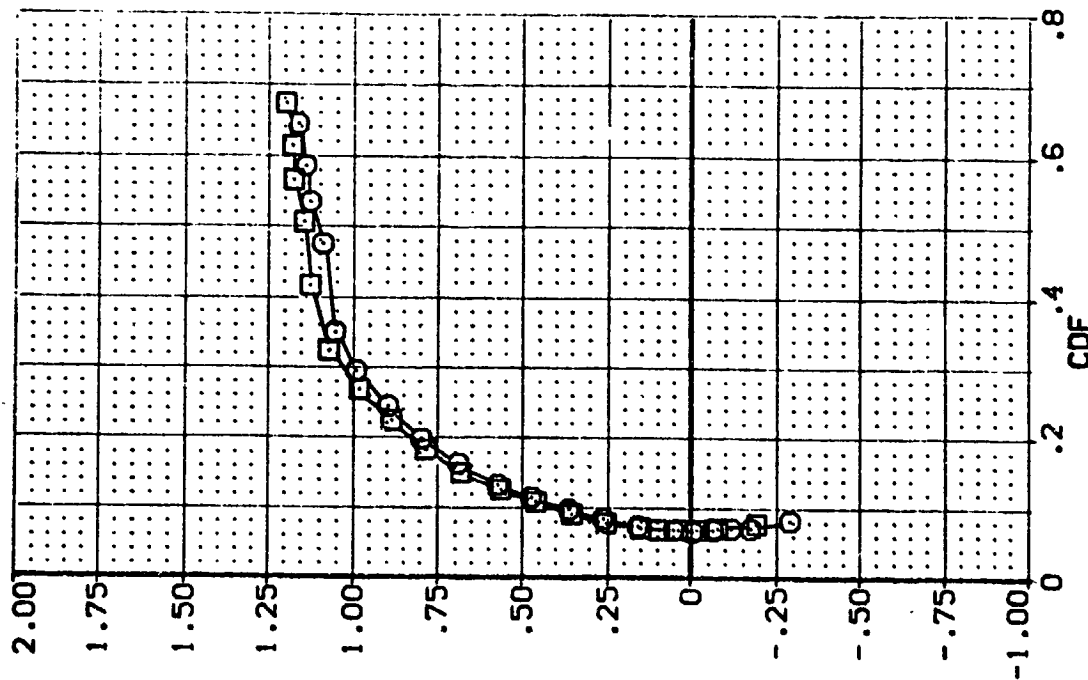
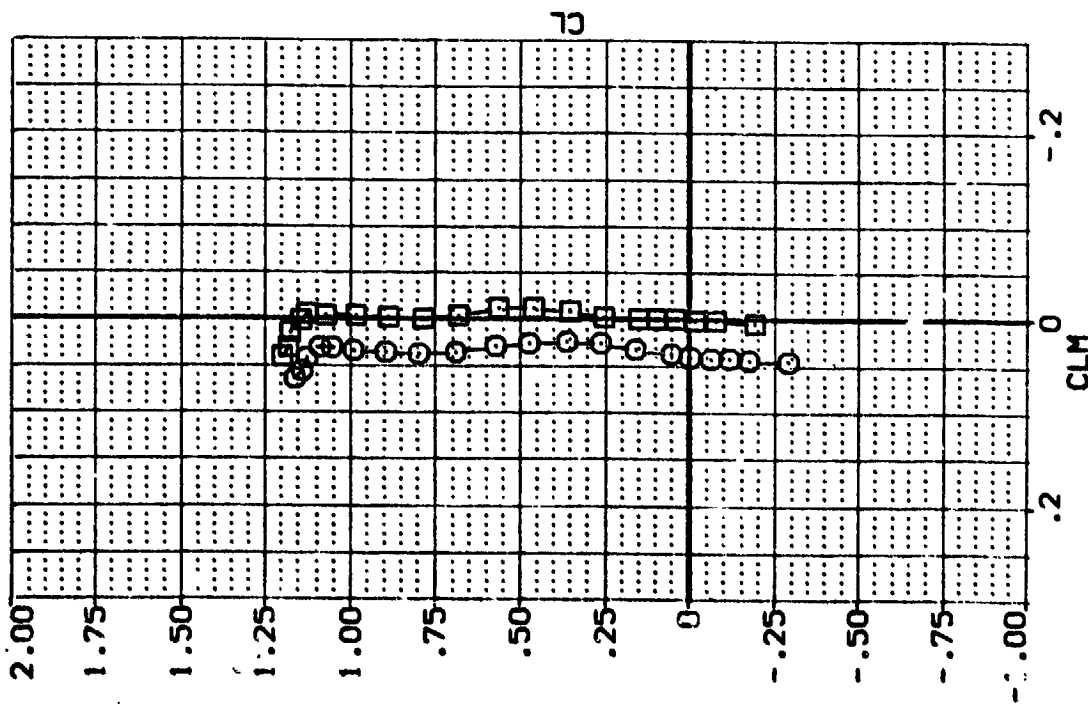


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING PODDED ENGINES

(A)MACH = .20

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L, FRACTION BODY LENGTH

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802077) 04628 B26C95 597F8/62V1 16228V85X10  
 (802083) 04628 B26C95 597F8/62V1 16228V85X10

ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES  
 (A)MACH = .20

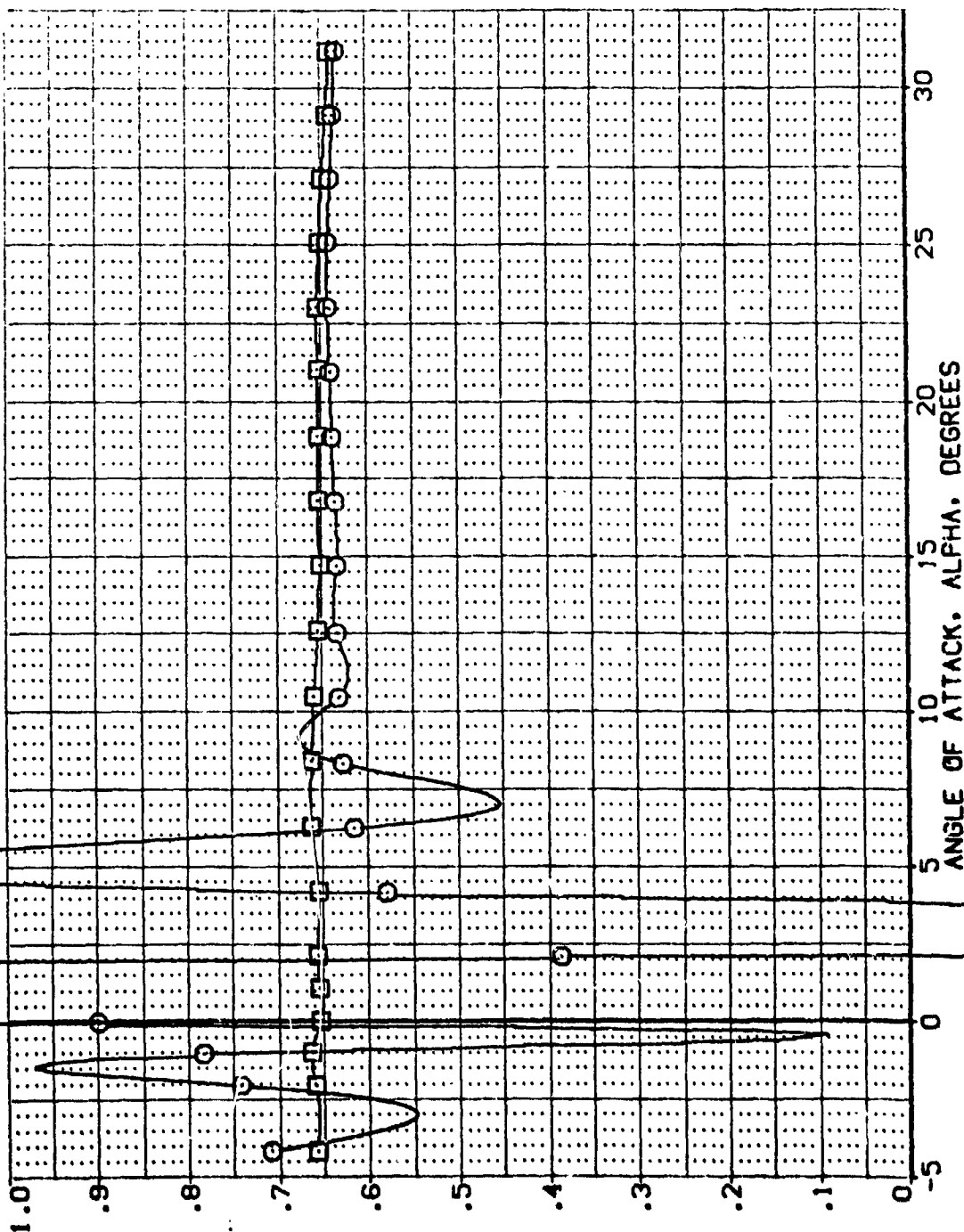
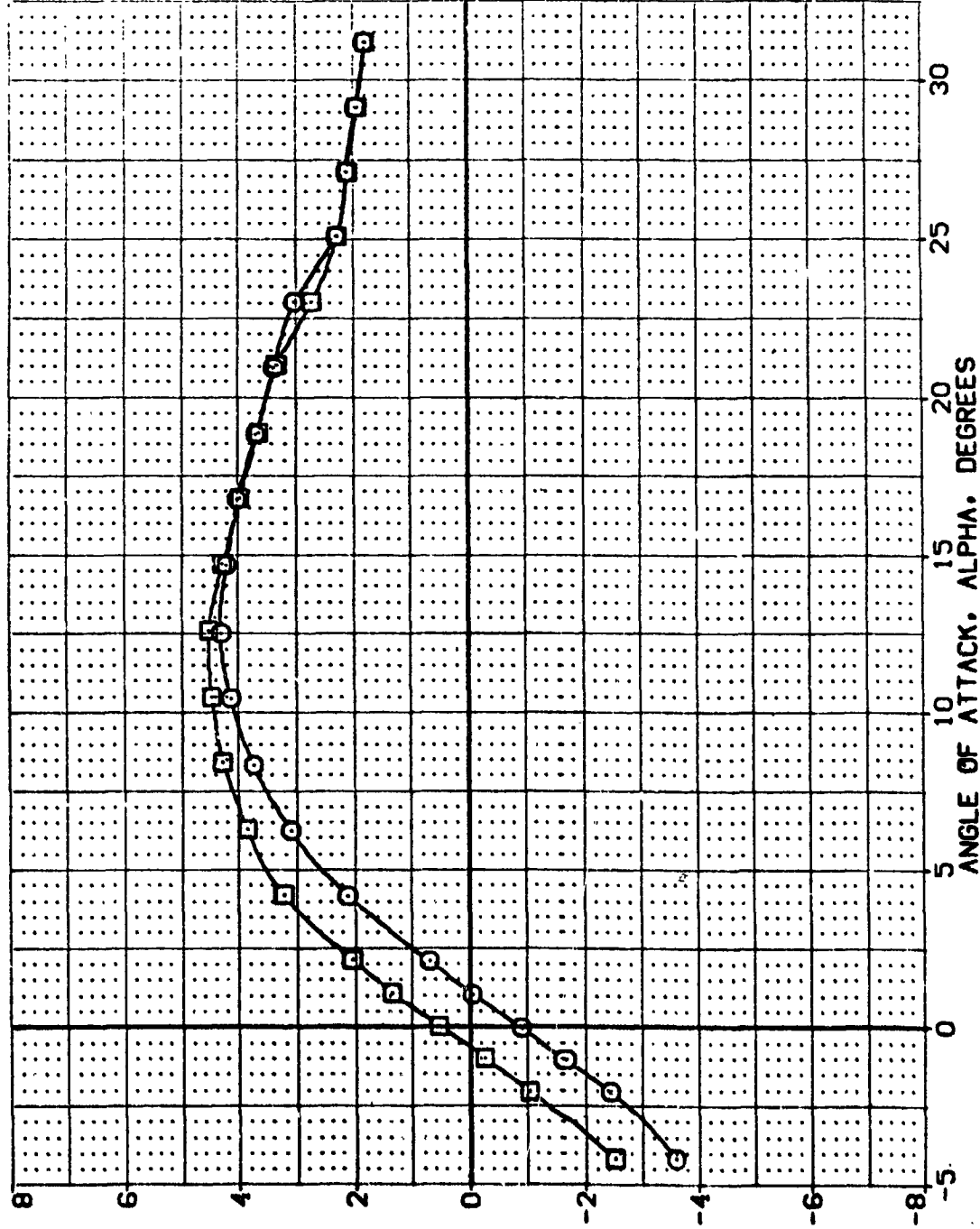


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES

( 802077 )	0A62R	826C9G15H7F8J62V1	16E28V8R5X10
( 802083 )	0A62B	826C9G15H7F8J62V1	16E28V8R5X10

ELEVON	SPDBRK	BOFLAP	RUDDER
.000	.000	-12.000	.000
5.000	.000	-12.000	.000

REFERENCE INFORMATION	
SREF	4.4119 SQ.FT.
LREF	19.2299 INCHES
BREF	37.9359 INCHES
XMRP	43.5974 INCHES
YMRP	.0000 INCHES
ZMRP	15.1875 INCHES
SCALE	.0405 SALE



**FIG 36** ELEVON EFFECTIVENESS,  $H/BW = 0.285$ , OVERWING PODED ENGINES

**{A}MACH = .20**

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(10Z077)

0A62B B26C9G15M7F8J62W116E28V8R5X10

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	AILRON	SPOBRK	DELVON	DELVON	DELVON	DELVON	LREF	SREF	SO.FT.	INCHES
0	.000	.200	.200	-12.000	.000	.000	.000	.000	.000	19.2298	4.4119	INCHES	INCHES
		BOFLAP								37.9355		INCHES	INCHES
		RUDER								43.5974		INCHES	INCHES
		H/BW								.0000		INCHES	INCHES
										15.1875		INCHES	INCHES
										.0405		SCALE	SCALE

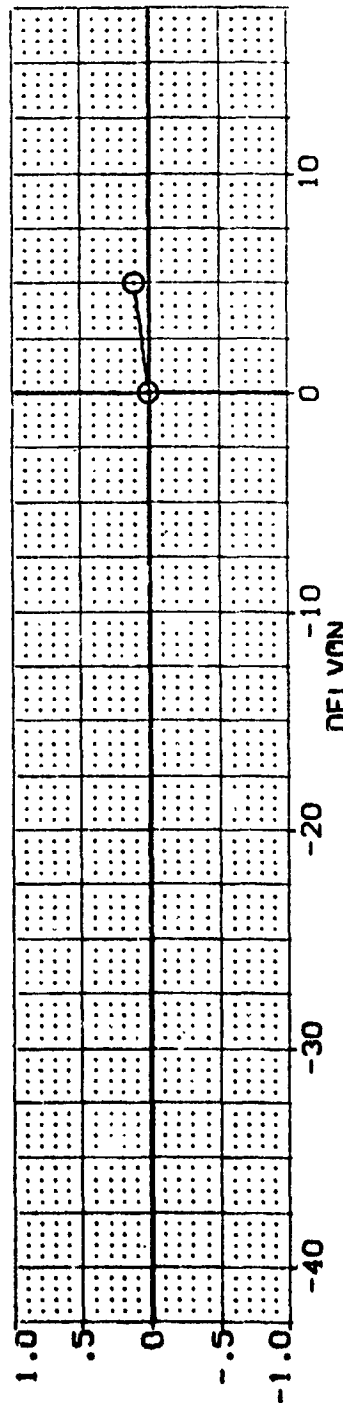
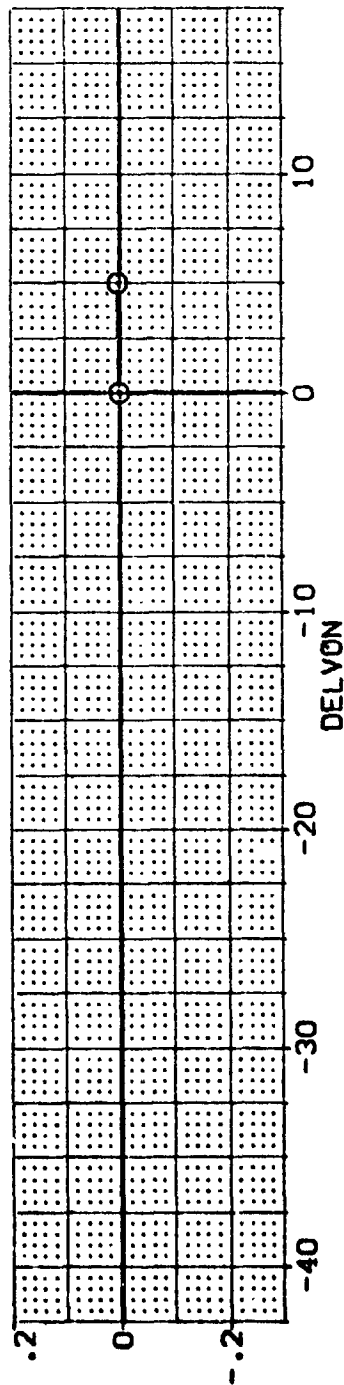
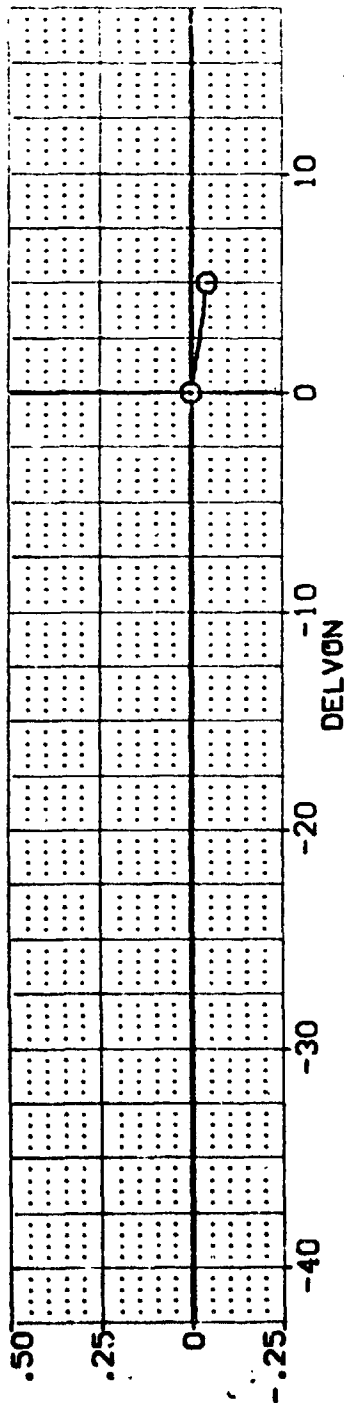


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING PODDED ENGINES



(1DZ077)

0A628 826C9G15M7F8J62W116E28V8R5X10

SYMBOL  
O

ALPHA 10.000  
MACH .200  
REFLAP .12.000  
FLUDDER .000  
H/BW .285

PARAMETRIC VALUES  
BETA  
AILRON  
SPOROK

DATA SOURCE  
DELTON  
1DZ083

REFERENCE INFORMATION  
SQ.FT.  
INCHES  
INCHES  
INCHES  
INCHES  
SCALE

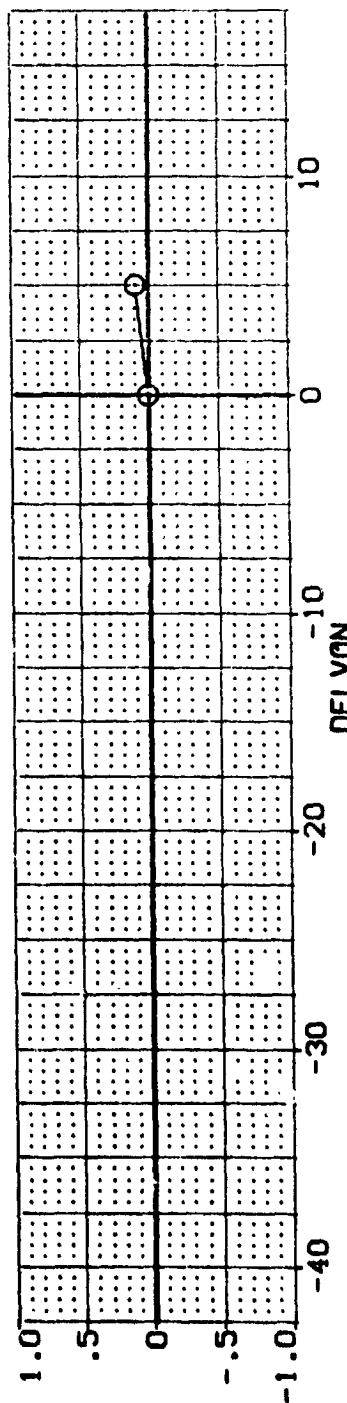
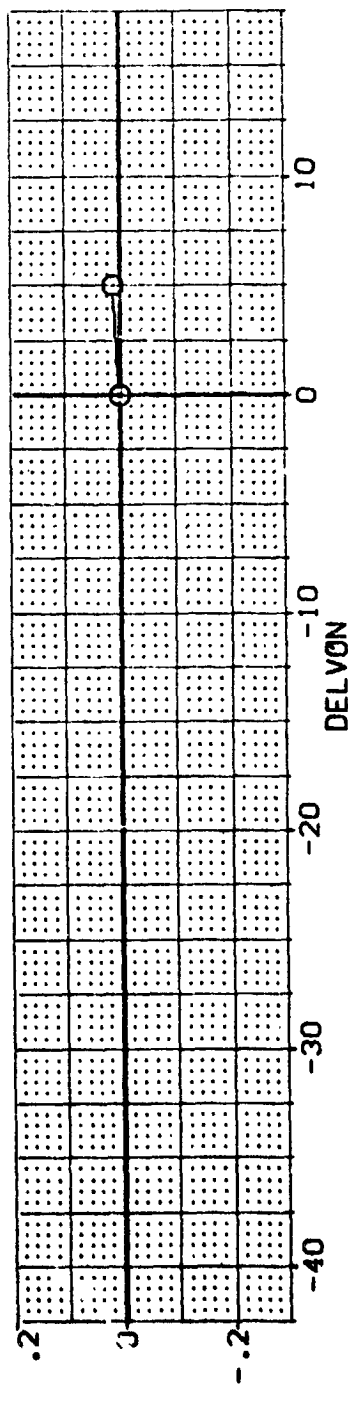
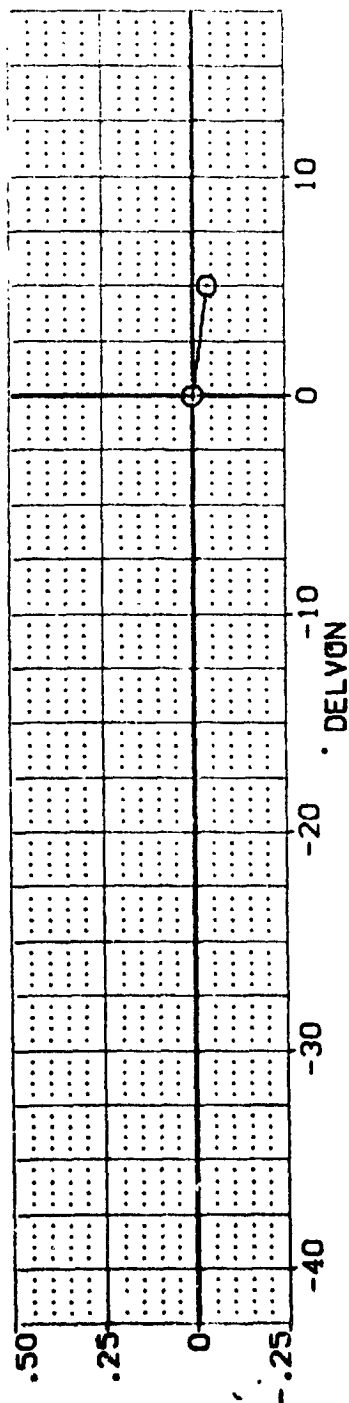


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES

0A628 B26C9G15N7F8J62W116E28V8R5X10 (10Z077)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELVON	SREF	REFERENCE INFORMATION
O	15.000		BETA	.000	10Z077	.000	4.4119	SQ.FT.
			-12.000	.000	10Z077	.000	19.2299	INCHES
			SPDRK	.000	10Z077	.000	37.9359	INCHES
							43.5974	INCHES
							.0000	INCHES
							15.1875	INCHES
							.0405	SCALE

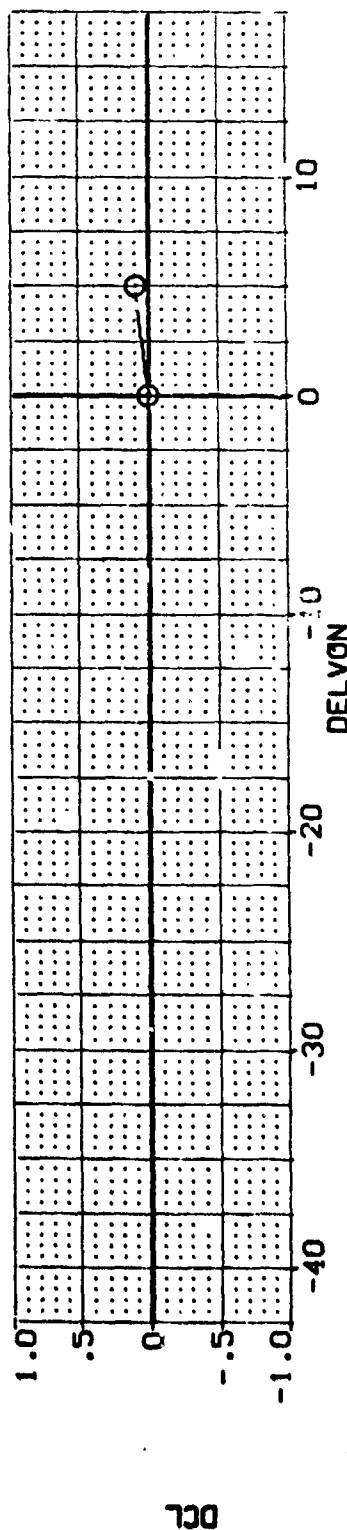
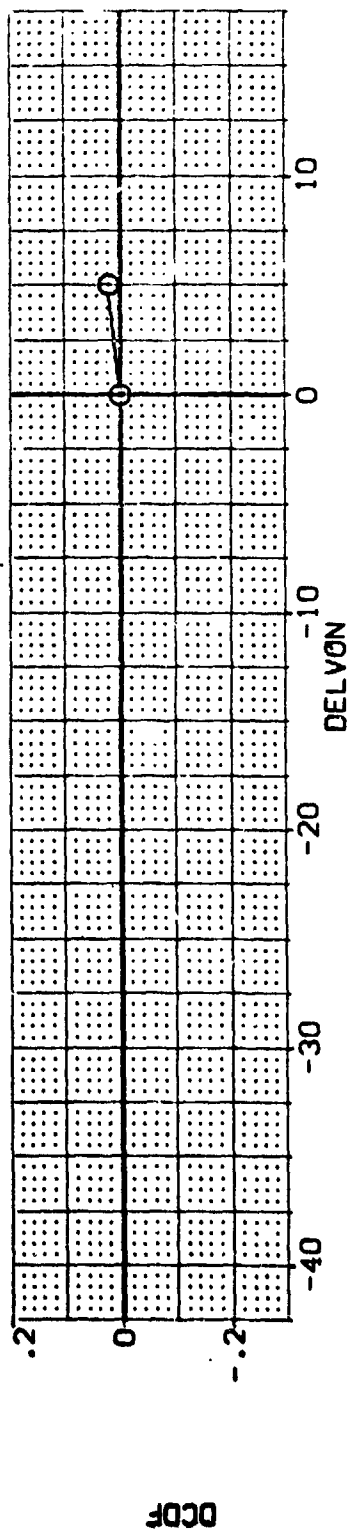
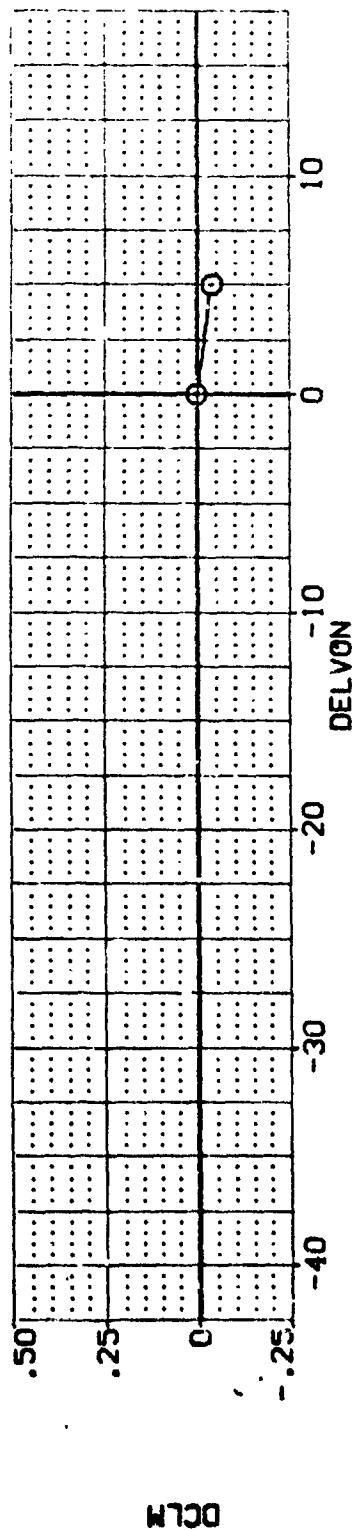


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES



0A628 B26C9G15M7F8J62W116E28V8R5X10 (1DZ077)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	20.000	MACH	.200	BETA	.000	DATASET	DEL VON	SREF	4.4119	SO. FT.	
BOFLAP	-12.000	AILRON	.000	AILRON	.000	1DZ077	5.000	LREF	19.2299	INCHES	
RUDDER	.000	SPOBRK	.000	SPOBRK	.000			EREF	37.9359	INCHES	
H/BW	.285							XTRP	43.5974	INCHES	
								YTRP	.0000	INCHES	
								ZTRP	15.1875	INCHES	
								SCALE	.0405	SCALE	

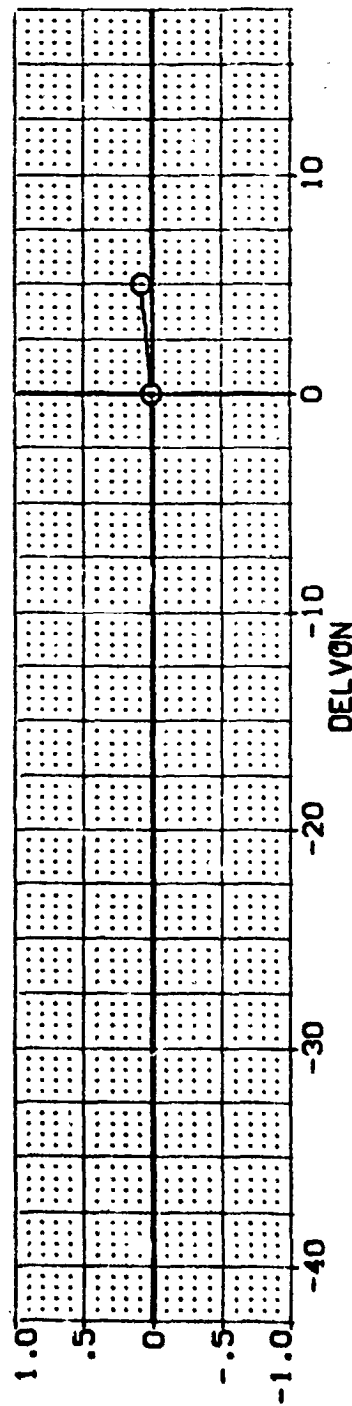
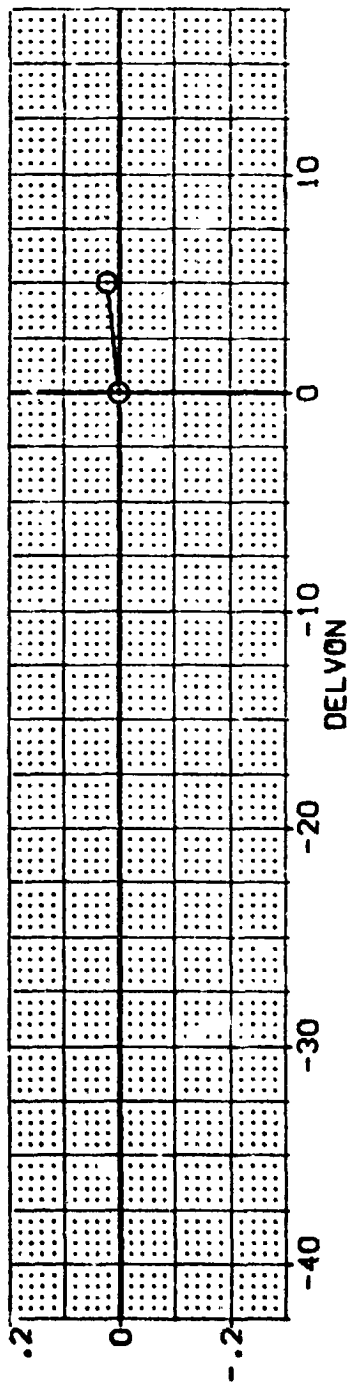
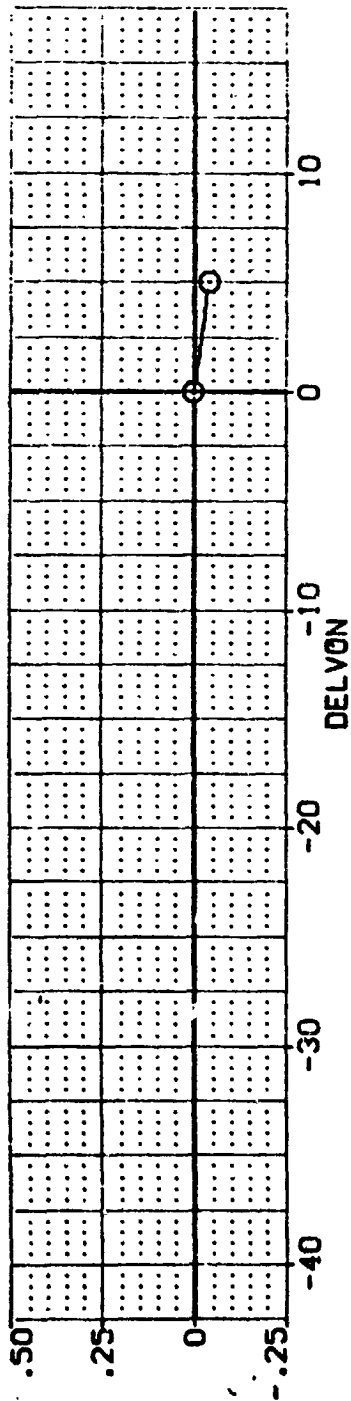


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING PODDED ENGINES

(10Z077)

0A628 B26C9G15M7F8J62W116E28V8R5X10

SYMBOL  
O

ALPHA  
25.000

PARAMETRIC VALUES  
WACH  
BDFLAP  
RUDDER  
H/BW

BETA  
.200  
AILRON  
SPDRK  
.000  
SPOBRK  
.000  
H/BW  
.285

DATA SOURCE  
DELTON  
.000  
DATASET  
10Z077  
.000  
DELTON  
10Z083  
.000

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XTRP  
YTRP  
ZTRP  
SCALE  
4.4119  
19.2298  
37.9359  
43.5974  
.0000  
.0000  
15.1875  
.0405

SO.FT.  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
SCALE

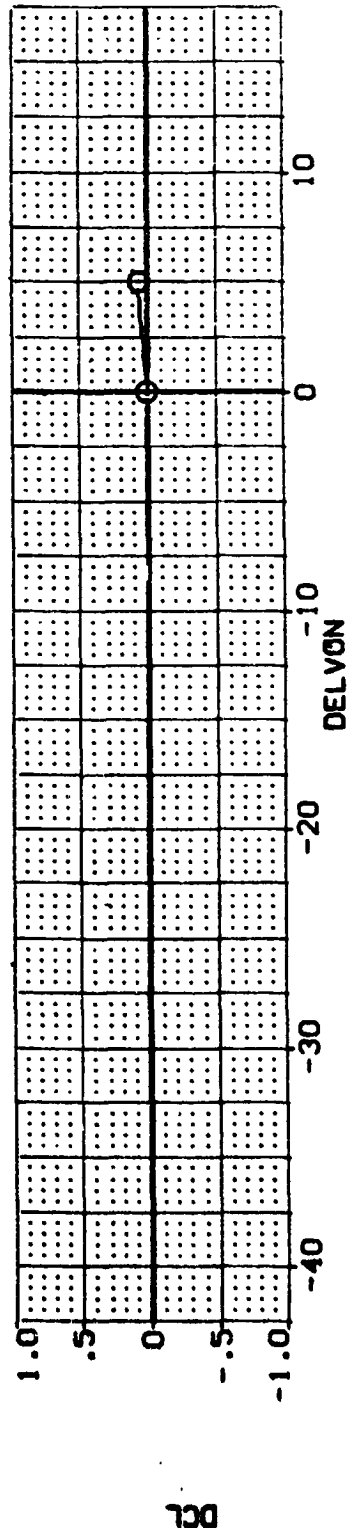
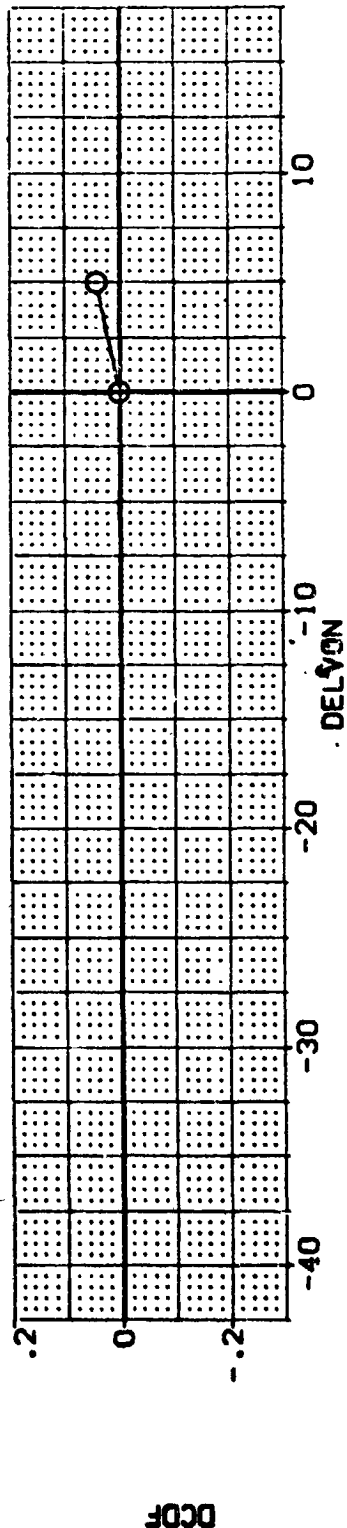
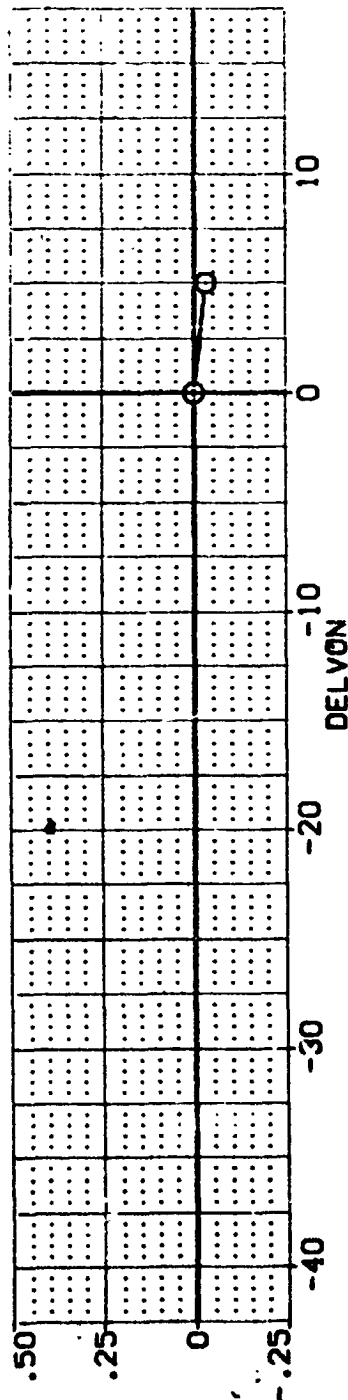


FIG 36 ELEVON EFFECTIVENESS. H/BW = 0.285, OVERWING PODDED ENGINES

0A628 B26C9G15M7F8J62W11GE28V8R5X10 (1DZ077)  
 SYMBOL ALPHA 30.000  
 O  
 PARAMETRIC VALUES  
 MACH .200 BETA  
 BOFLAP -12.000 AILRON  
 RUDDER .000 SPDRK  
 H/BW .285  
 DATA SOURCE  
 DELVON .000 DATASET 1DZ077  
 DELVON .000  
 REFERENCE INFORMATION  
 SQ.FT. 4.4119  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5574 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

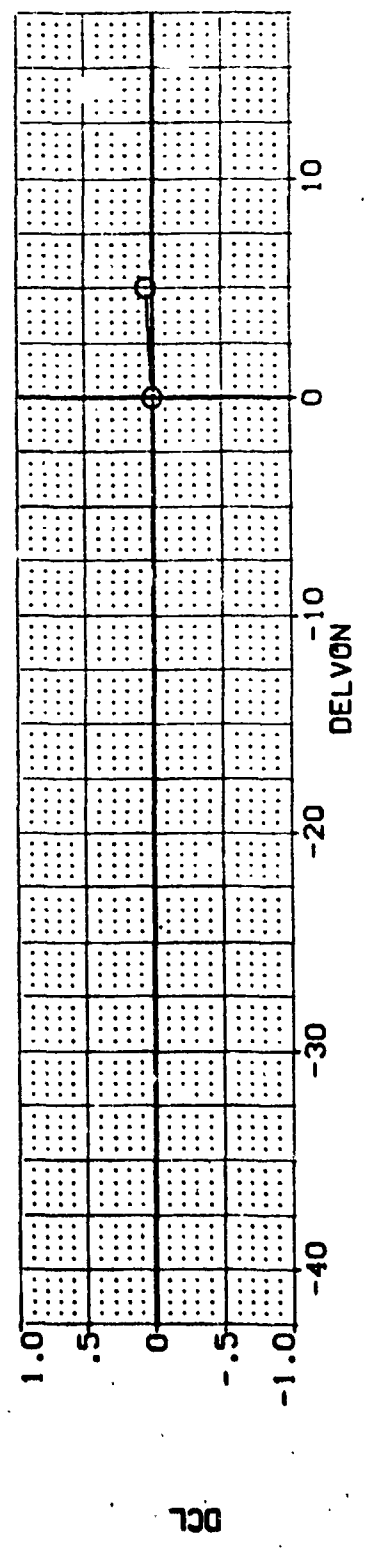
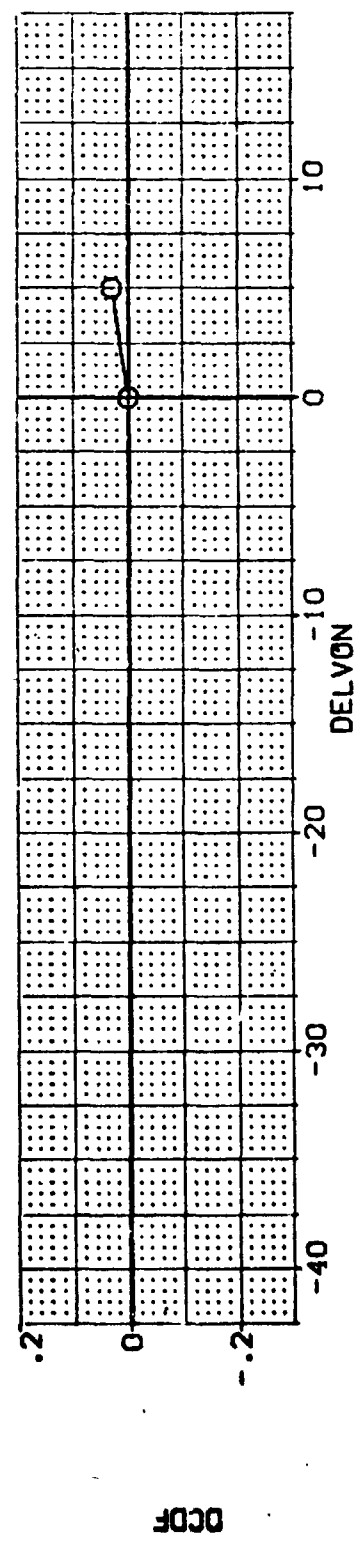
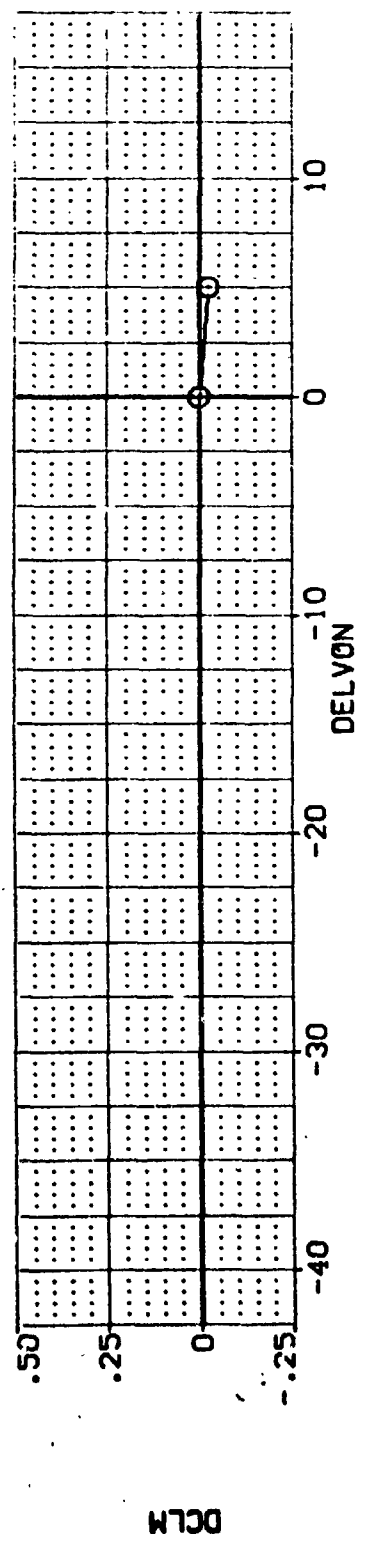


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES  
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OAS28 B26C9G15M7F8J62W116E28V8R5X10 (10Z077)  
 SYMBOL ALPHA .000  
 MACH .200  
 BDFLAP -12.000  
 RUDDER .000  
 W/BW .285  
 PARAMETRIC VALUES  
 BETA .000  
 AILRON .000  
 SPOBRK .000  
 DATA SOURCE  
 DELVON .000  
 DATASET 10Z077  
 DATASET 10Z093  
 DELVON 5.000  
 SREF  
 LREF  
 BREF  
 XMRP  
 YMRP  
 ZMRP  
 SCALE  
 REFERENCE INFORMATION  
 4.4119 SO. FT.  
 19.2299 INCHES  
 37.9359 INCHES  
 43.5974 INCHES  
 .0000 INCHES  
 15.1875 INCHES  
 .0405 SCALE

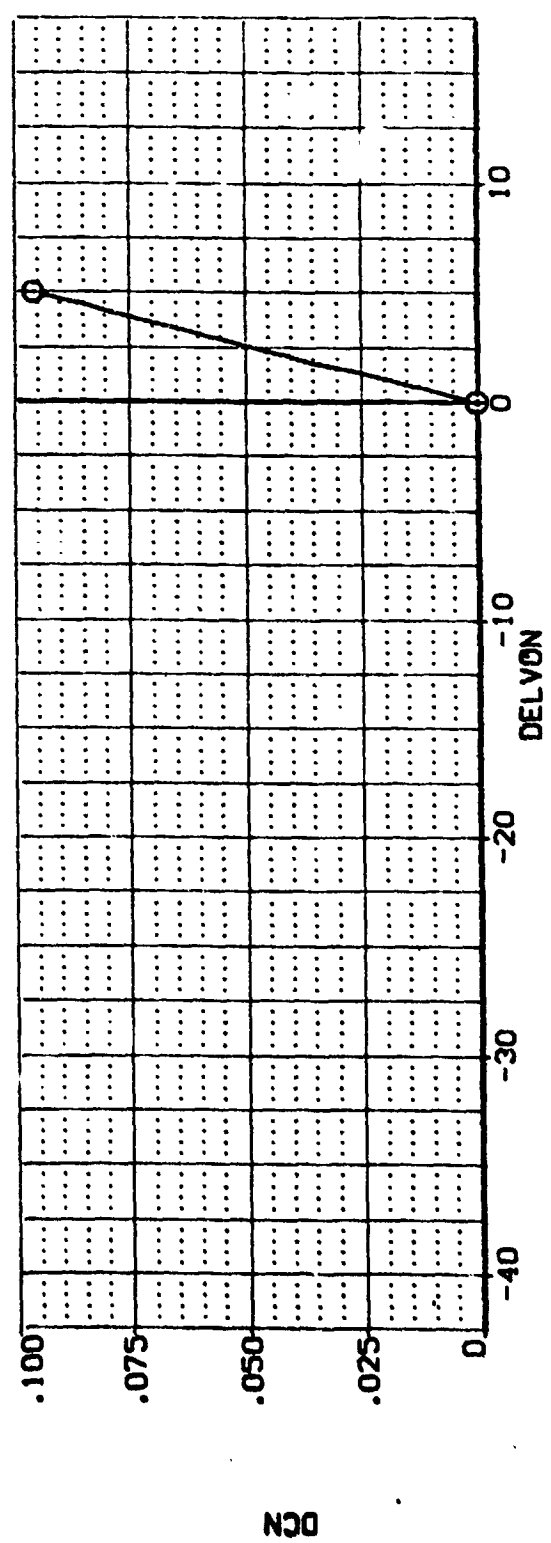
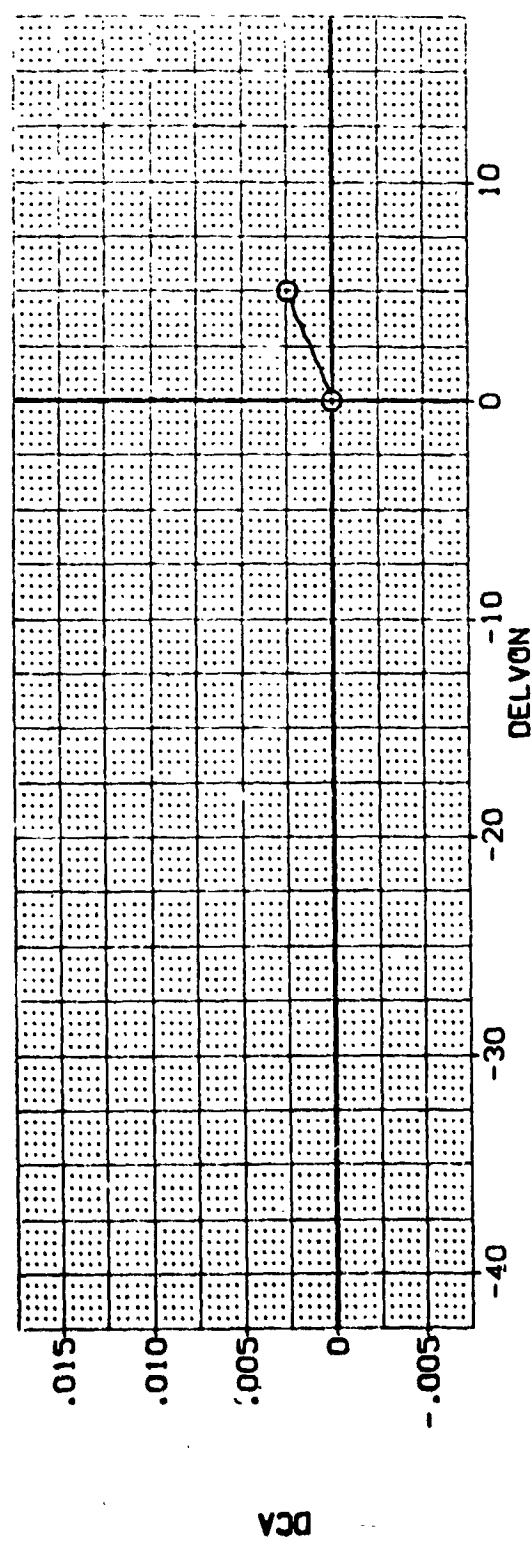


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING PODDED ENGINES

(1DZ077)

0A628 B26C9G15M7F8J62W116E28V8R5X10

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
O	ALPHA	5.000	MACH	.000	DATASET	DELVON	SREF
	BOFLAP	.200	BETA	.000	1DZ077	5.000	4.4119
	RUDDER	-12.000	AILRON	.000	1DZ063	19.2259	INCHES
	H/BW	.000	SPDRK	.000		37.9359	INCHES
						43.5974	INCHES
						15.1875	INCHES
						SCALE	.0405

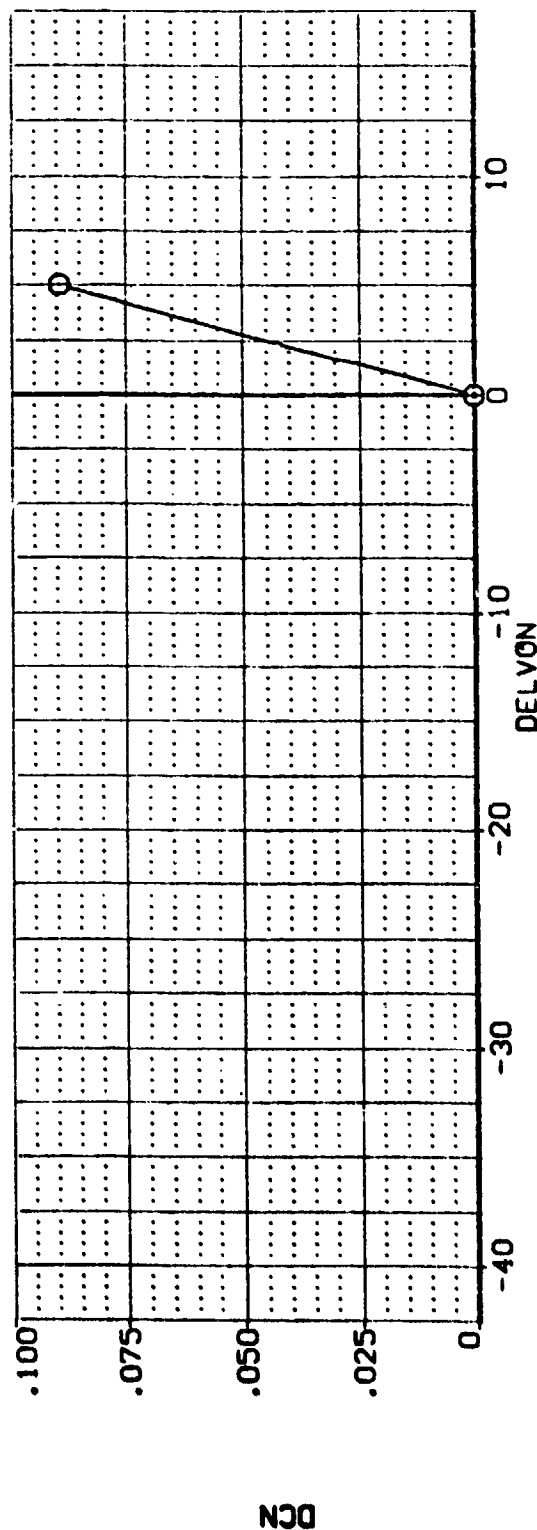
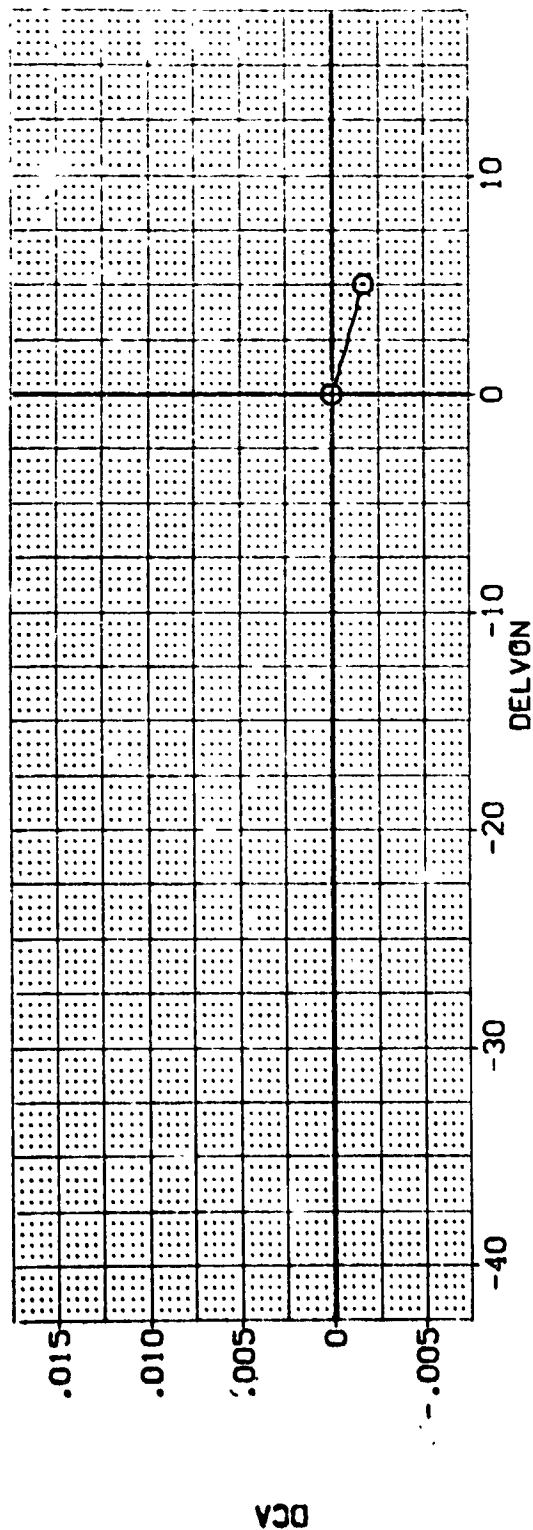


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES

0A628 B26C9G15M7F8J62W116E28V8R5X10 (1DZ077)  
 SYMBOL ALPHA 10.000  
 O  
 PARAMETRIC VALUES  
 MACH .200 BETA  
 BOFLAP -12.000 AILRON  
 RUDDER .000 SPOBRK  
 H/BW .285  
 DATA SOURCE  
 .000 DATASET 10Z077  
 .000 DELVON  
 DATASET 10Z083  
 DELVON 5.000  
 SREF  
 LREF  
 BREF  
 XMRP  
 YMRP  
 ZMRP  
 SCALE  
 REFERENCE INFORMATION  
 SQ.FT. 4.4119  
 INCHES 19.2299  
 INCHES 7.9359  
 INCHES 43.5974  
 INCHES .0000  
 INCHES 15.1875  
 INCHES .0405

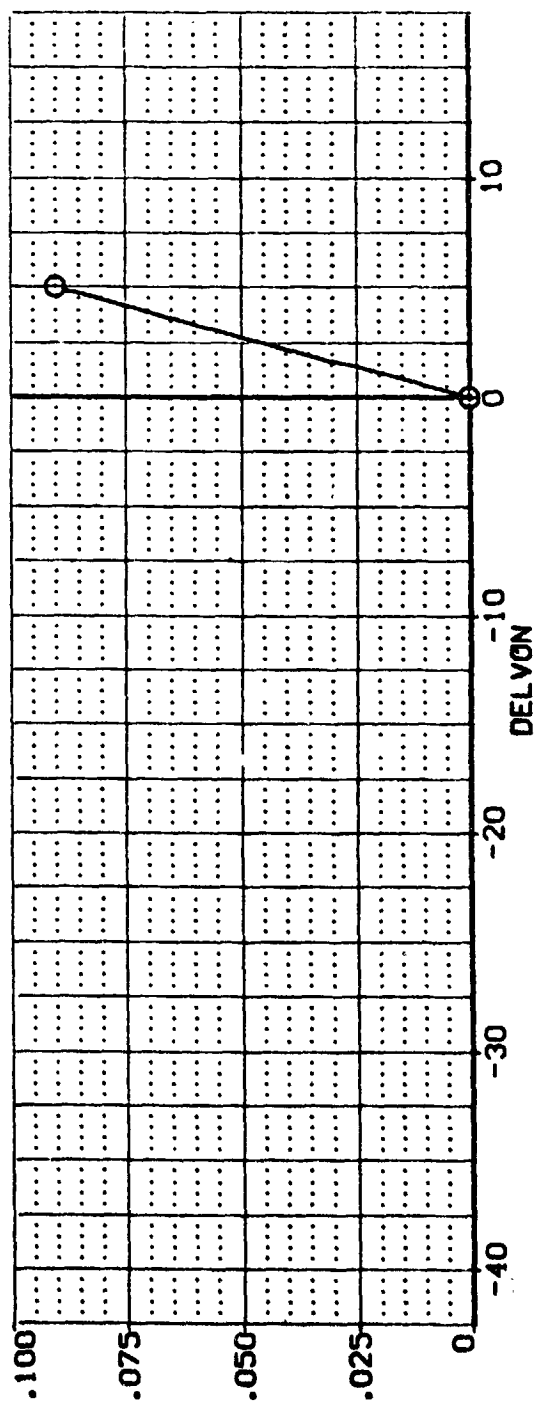
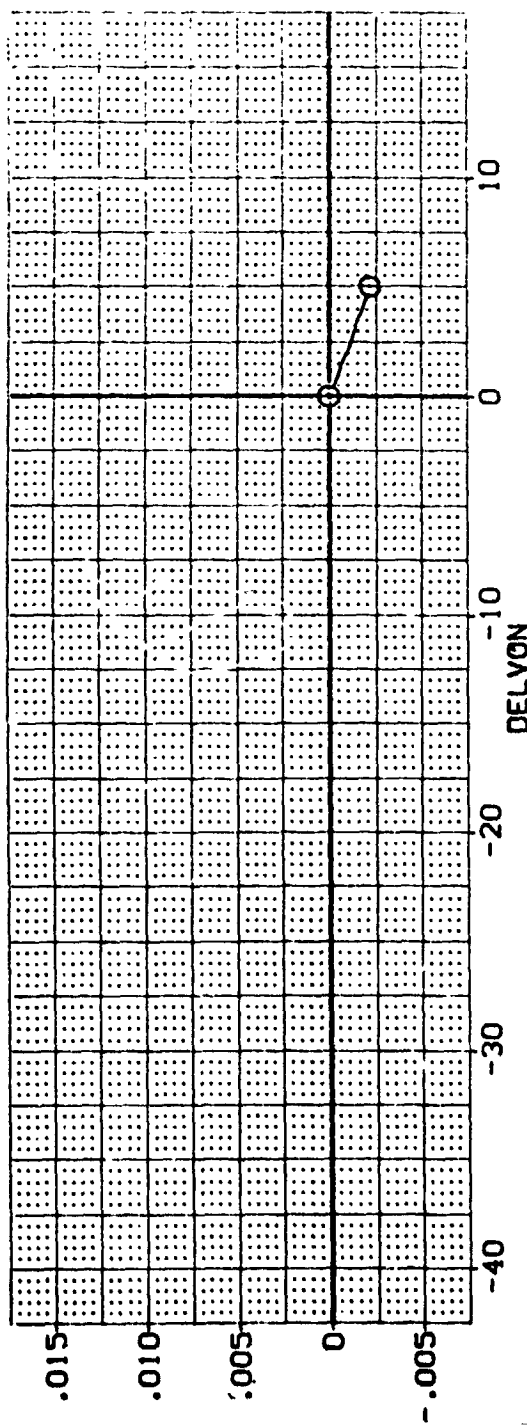


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES  
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(10Z077)

0A628 B26C9G15M7F8J62W116E28V8R5X10

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
SYMBOL	ALPHA	MACH	BOFLAP	BETA	DELTON	DATASET	DELTON	SREF	SO.FT.
O	15.000			.200	.000	10Z077	.000	4.4119	INCHES
				-12.000	.000	10Z077	.000	19.2299	INCHES
				.000	.000	10Z077	.000	37.9359	INCHES
				.000	.000	10Z077	.000	43.5974	INCHES
				.285		10Z077	.000	.0000	INCHES
						10Z077	.000	15.1875	INCHES
						10Z077	.000	.0405	SCALE

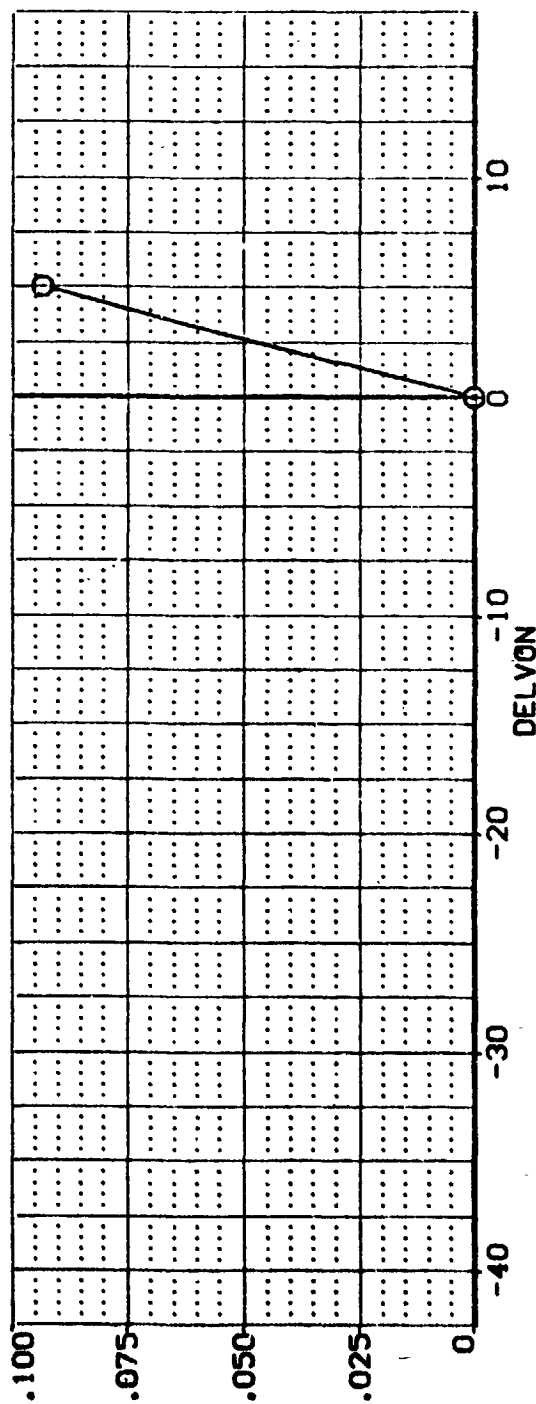
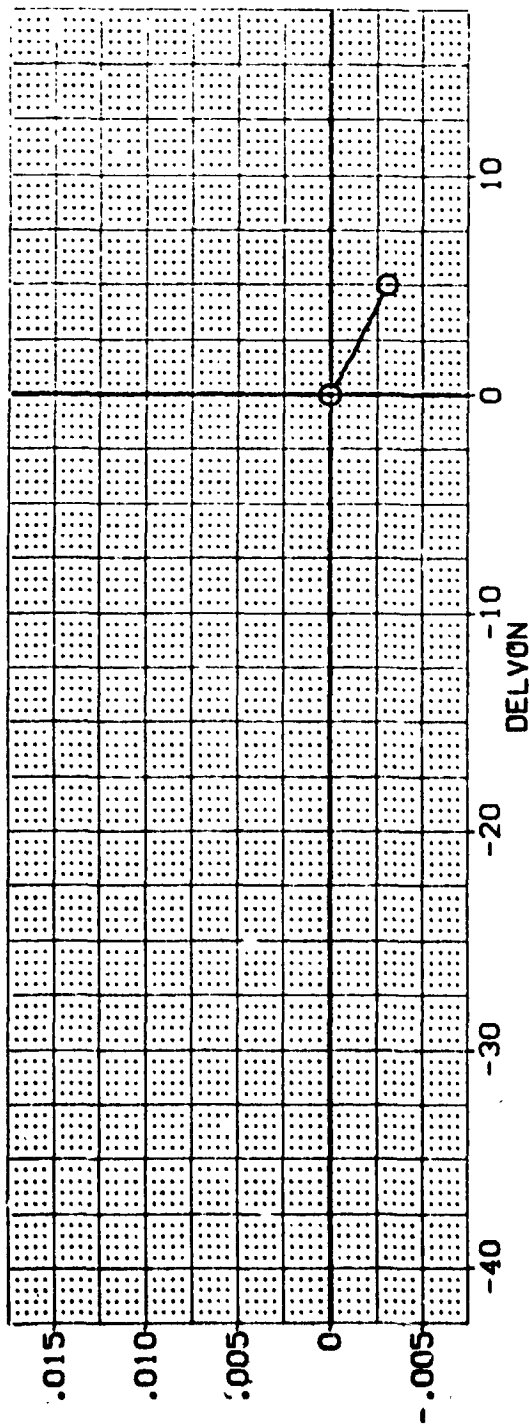


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES





1

## Symbols

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(1DZ077)

0A628 B26C9G15M7F8J62W116E28V8R5X10

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	30.000		BETA	DELTON	SQ.FT.
			-12.000	1DZ077	INCHES
			AILRON	5.000	INCHES
			SPOBRK		INCHES
					INCHES
					INCHES
					INCHES
					SCALE

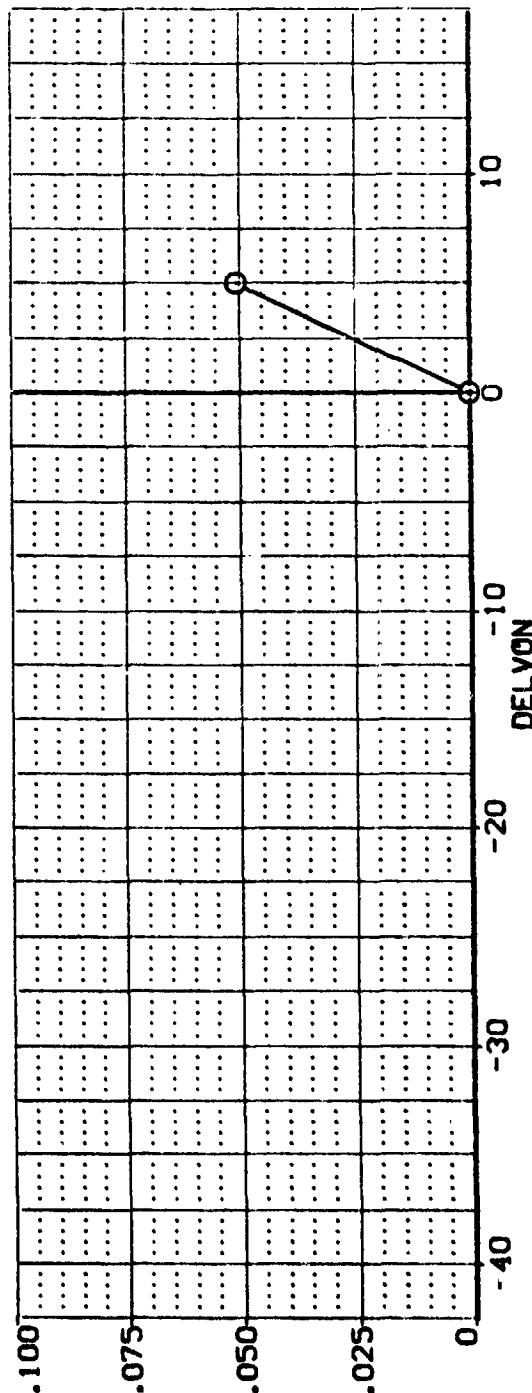
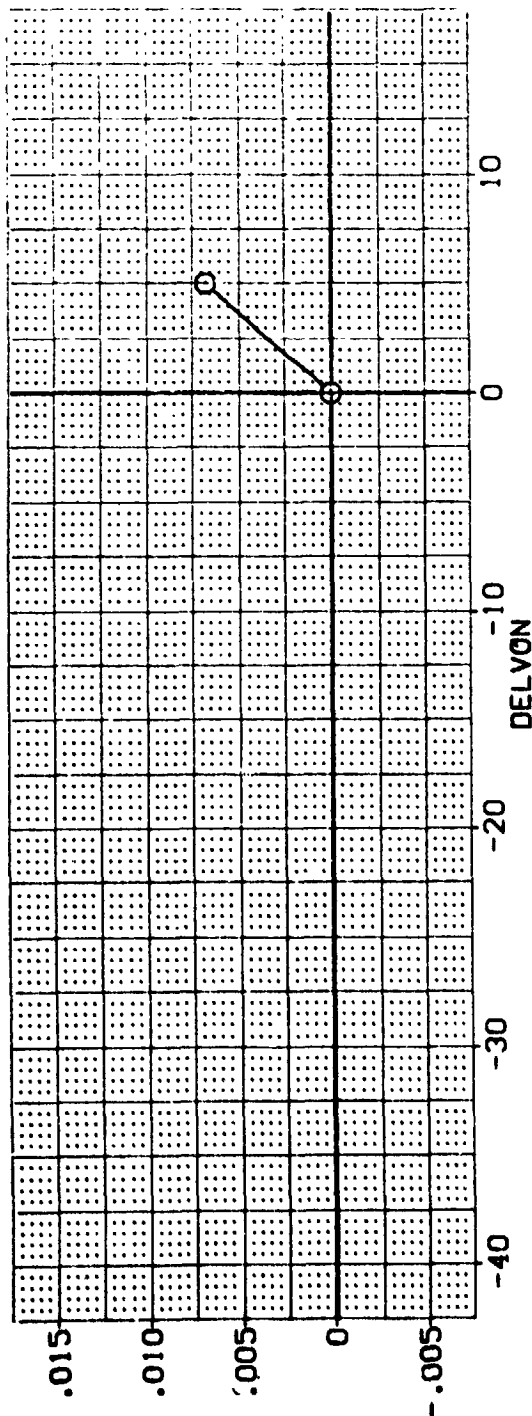


FIG 36 ELEVON EFFECTIVENESS, H/BW = 0.285, OVERWING POODED ENGINES

DATA SET	SWEEP	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	AIRLON	REFERENCE INFORMATION
(ADZ085)	Q	04628 B26C9G1547F8 V116E28V8RSX9	.000	.000	.000	.000	SREF 4.4119 SQ.FT.
(ADZ086)	Q	04628 B26C9G1547F8 V116E28V8RSX9	5.000	.000	.000	.000	LREF 19.2299 INCHES
(ADZ087)	Q	04628 B26C9G1547F8 V116E28V8RSX9	10.000	.000	.000	.000	BREF 37.9359 INCHES
(ADZ088)	Q	04628 B26C9G1547F8 V116E28V8RSX9	15.000	.000	.000	.000	XMRP 43.5974 INCHES
(ADZ089)	Q	04628 B26C9G1547F8 V116E28V8RSX9	20.000	.000	.000	.000	YMRP 15.0000 INCHES
							ZMRP 15.1875 INCHES
							SCALE .0405

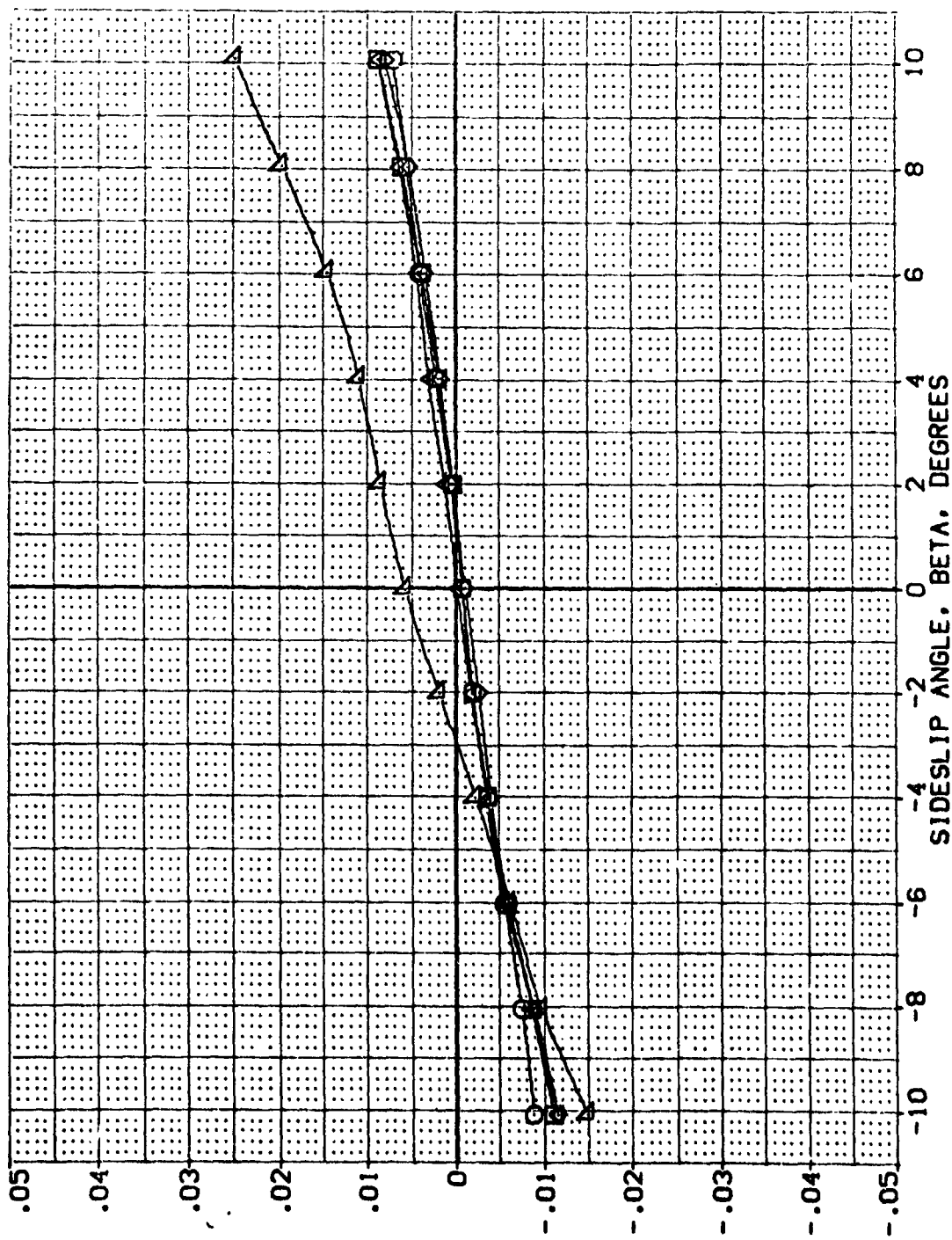


FIG 37 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 0  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDBRK	AIRLON	REFERENCE INFORMATION
(A07085)	04628 B26C9G1547F8 V116E28V8R5X9	.000	.000	.000	.000	SREF 4.4119 SQ.FT.
(A07086)	04628 B26C9G1547F8 V116E28V8R5X9	5.000	.000	.000	.000	LREF 15.2299 INCHES
(A07087)	04628 B26C9G1547F8 V116E28V8R5X9	10.000	.000	.000	.000	BREF 37.9359 INCHES
(A07088)	04628 B26C9G1547F8 V116E28V8R5X9	15.000	.000	.000	.000	XHRP 43.5974 INCHES
(A07089)	04628 B26C9G1547F8 V116E28V8R5X9	20.000	.000	.000	.000	YHRP .0000 INCHES
						ZHRP 15.1875 INCHES
						SCALE .0405 INCHES

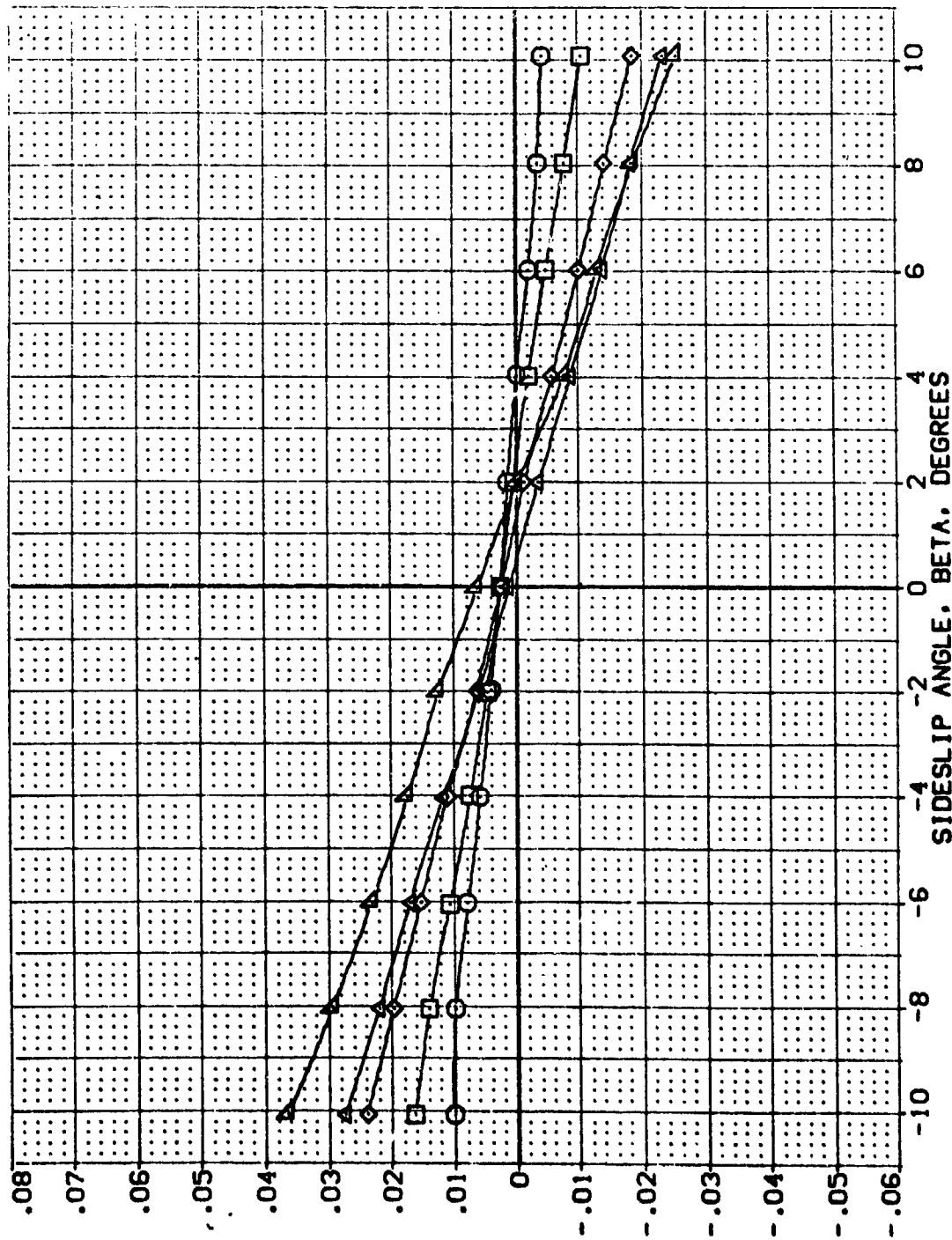


FIG 37 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVEN = 0, RUDDER FLARE = 0  
 (A)MACH = .20  
 PAGE 408

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRBK	AIRLON	REFERENCE INFORMATION
(A02085)	0A-28 B26C36154778	.000	.000	.000	.000	SREF 4.4119 SQ. FT.
(A02086)	0A-28 B26C36154778	5.000	.000	.000	.000	LREF 19.2298 INCHES
(A02087)	0A-28 B26C36154778	10.000	.000	.000	.000	BREF 37.5359 INCHES
(A02088)	0A-28 B26C36154778	15.000	.000	.000	.000	YMRP 43.5974 INCHES
(A02089)	0A-28 B26C36154778	20.000	.000	.000	.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SC/LE .0405

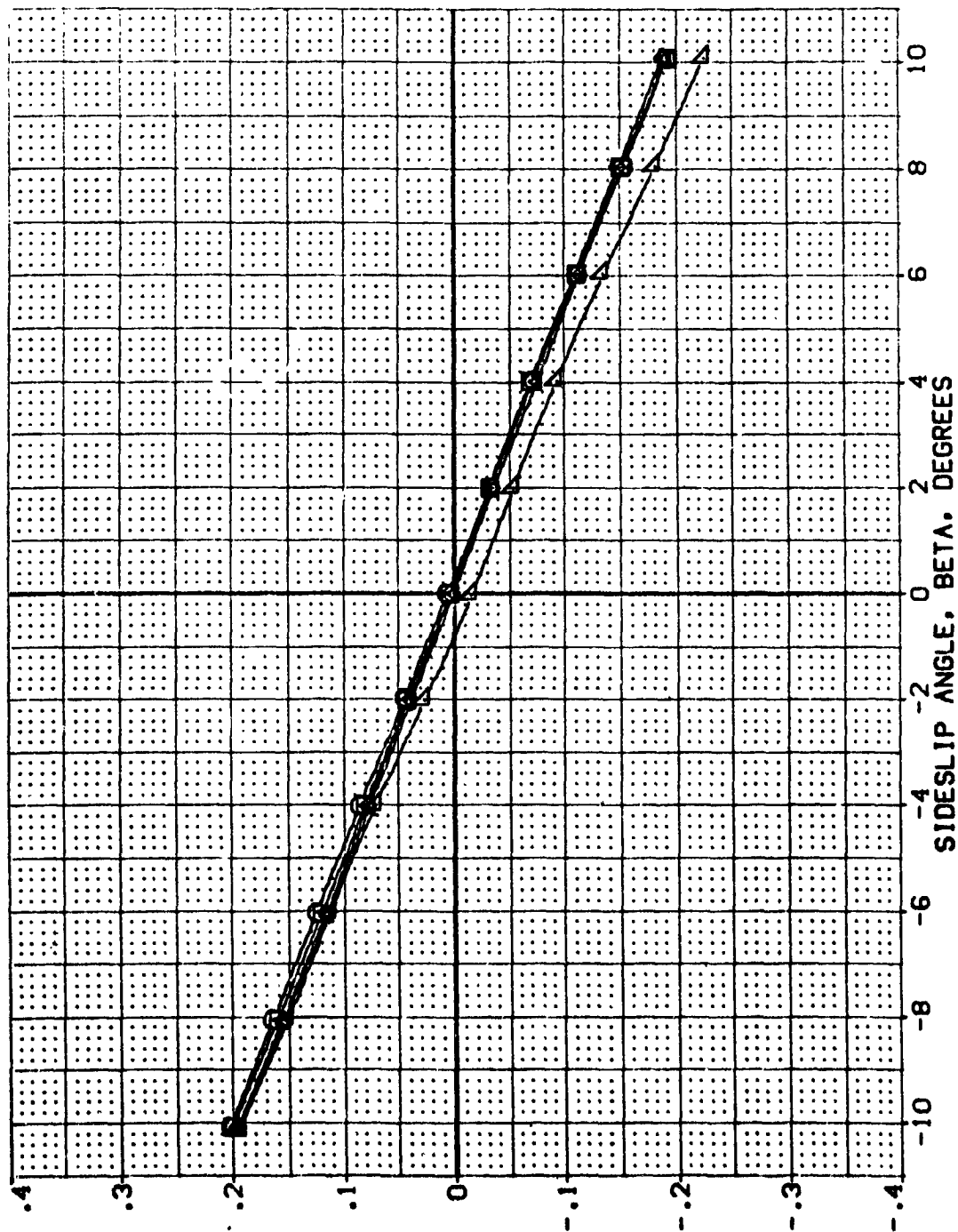


FIG 37 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 0  
(A)MACH = .20 PAGE 409

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYMBET, PER DEGREE

SYMBOL 0  
 ELEVON 1.521  
 MACH 0.200  
 AILRON 0.000  
 SPOBRK 0.000  
 PARAMETRIC VALUES  
 BOFLAP -12.000  
 RUDDER 0.000  
 (CDZ085)  
 0A628 B26C9G15M7F8 W116E28V8R5X9  
 REFERENCE INFORMATION  
 SREF 4.4119 SO.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5371 INCHES  
 YMRP 0.0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE 0.0405

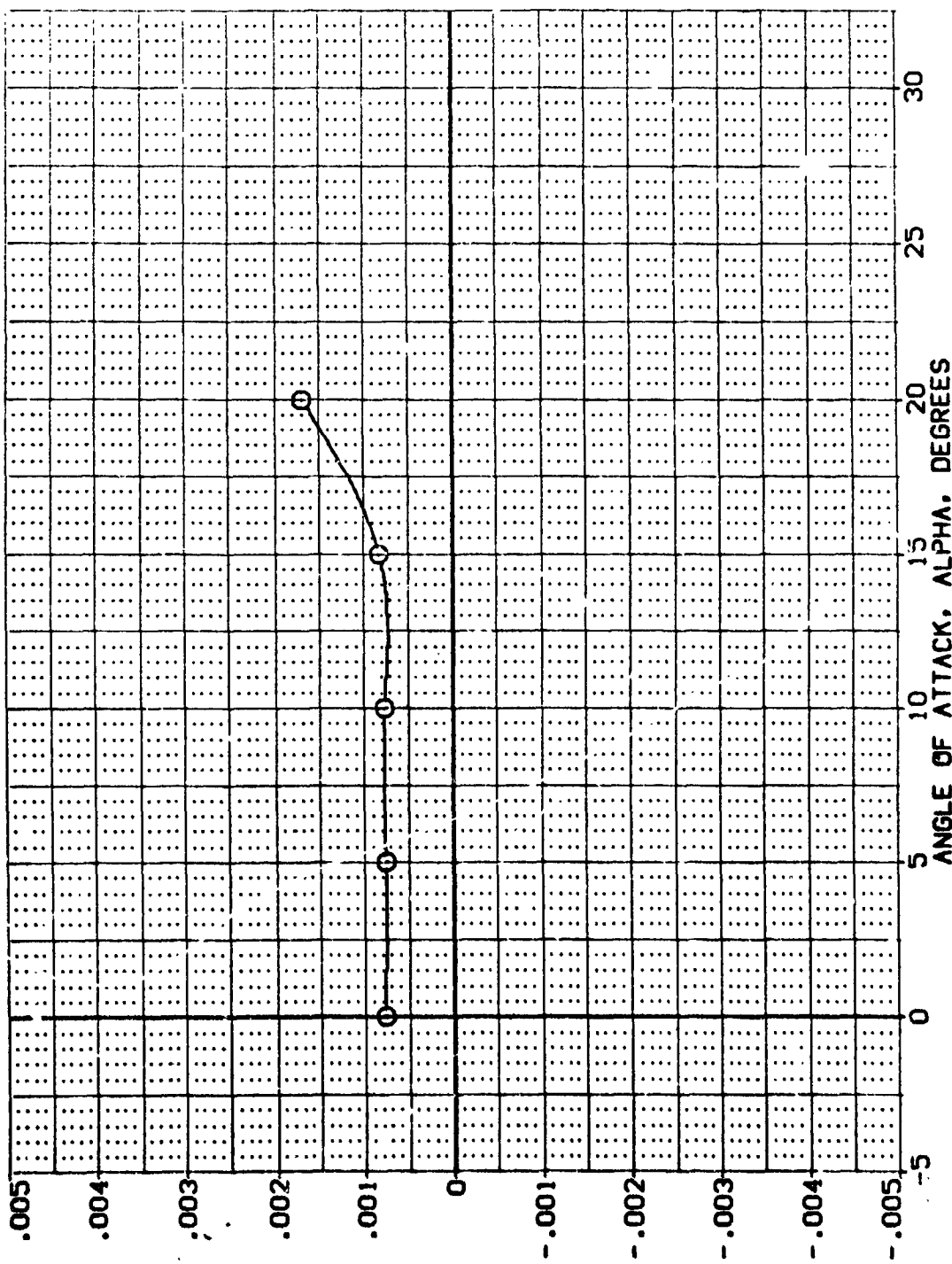


FIG 37 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 0



0A628 B26C9G15M7F8 W116E28V8R5X9

(C0Z085)

SYMBOL  
O

ELEVON  
.000

MACH  
A1LRON  
SPARK

PARAMETRIC VALUES  
.200 BOFLAP  
.000 RUDDER  
.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119 SO.FT.  
LREF 9.2259 INCHES  
HREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

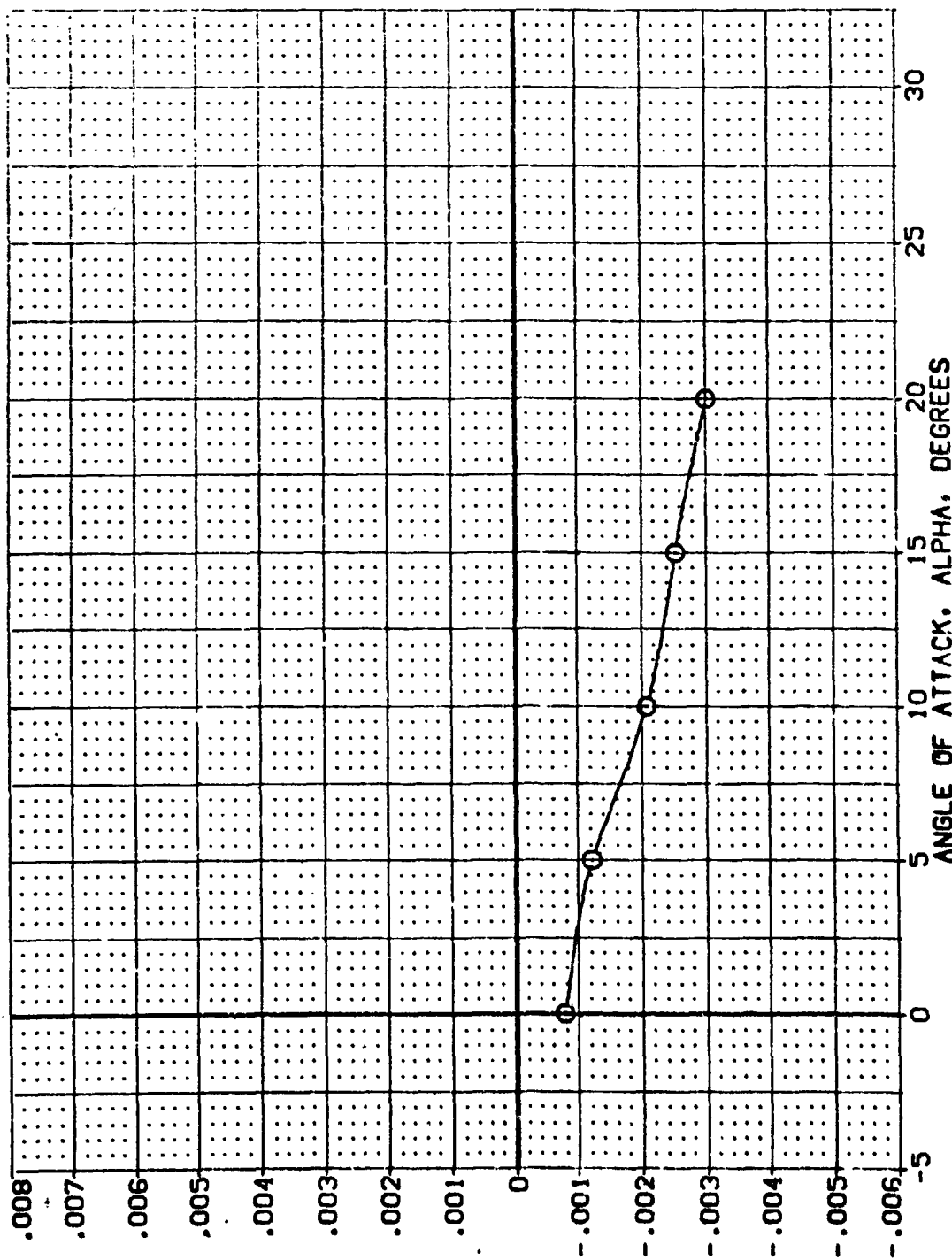


FIG 37 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 0

0A62B 226C9G15M7F8 W116E28V8R5X9 (C0Z085)

SYMBOL  
O

ELEVON  
.000

WING  
ALLUP  
SPDR

PARAMETRIC VALUES  
.200 BOFLAP  
.000 RUDDER  
.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
EREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

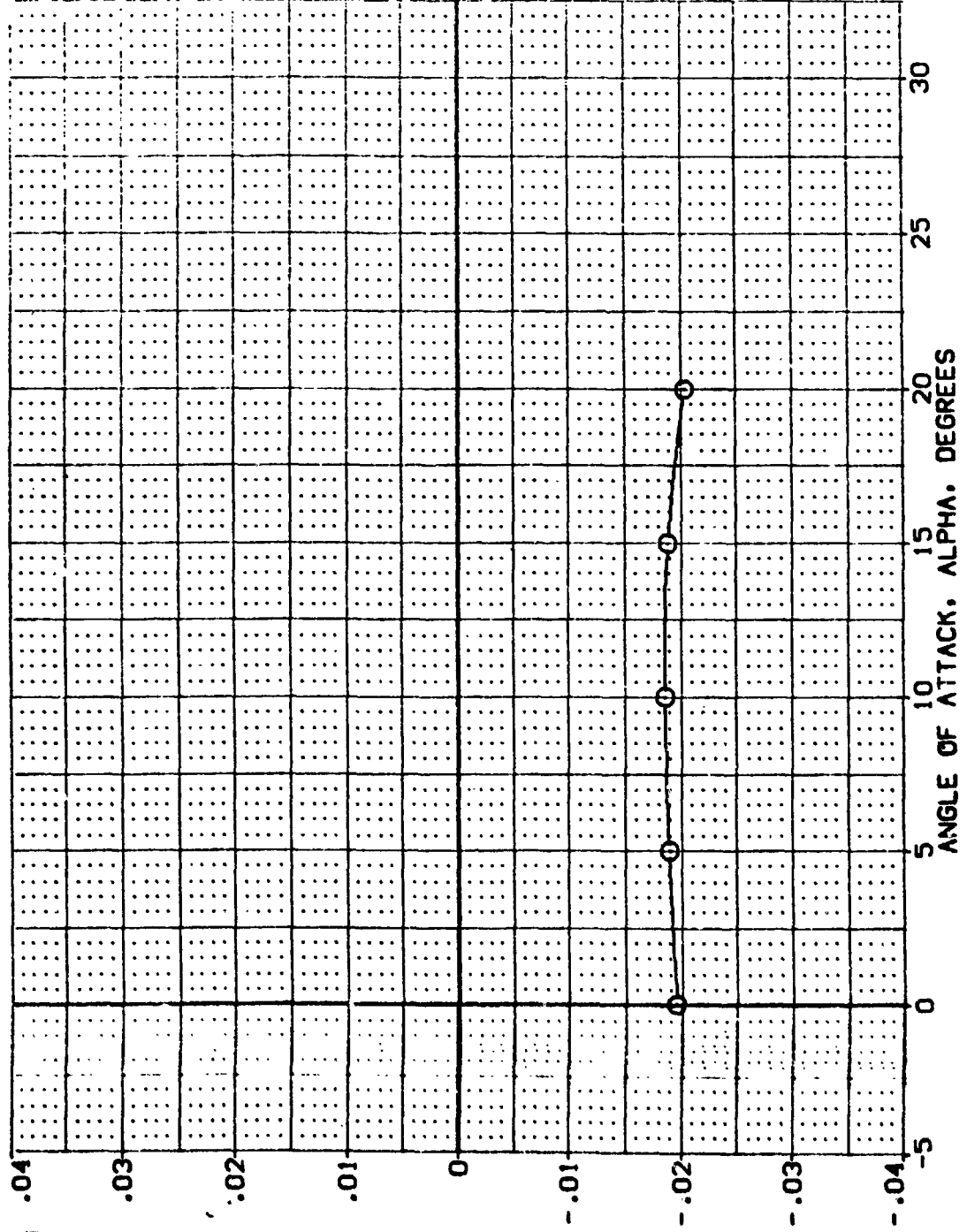


FIG 37 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDBRK	AILERON	REFERENCE INFORMATION
(R02091)	04628 B26C5G154778 V116E28V85X9	.000	.000	25.000	.000	SREF 4.4119 SO.FT
(R02092)	04628 B26C5G154778 V116E28V85X9	.5.000	.000	25.000	.000	LREF 19.2299 INCHES
(R02093)	04628 B26C5G154778 V116E28V85X9	10.000	.000	25.000	.000	BREF 37.5359 INCHES
(R02094)	04628 B26C5G154778 V116E28V85X9	15.000	.000	25.000	.000	XMRP 43.5574 INCHES
(R02095)	04628 B26C5G154778 V116E28V85X9	20.000	.000	25.000	.000	ZMRP 15.1875 INCHES
						SCALE .0405

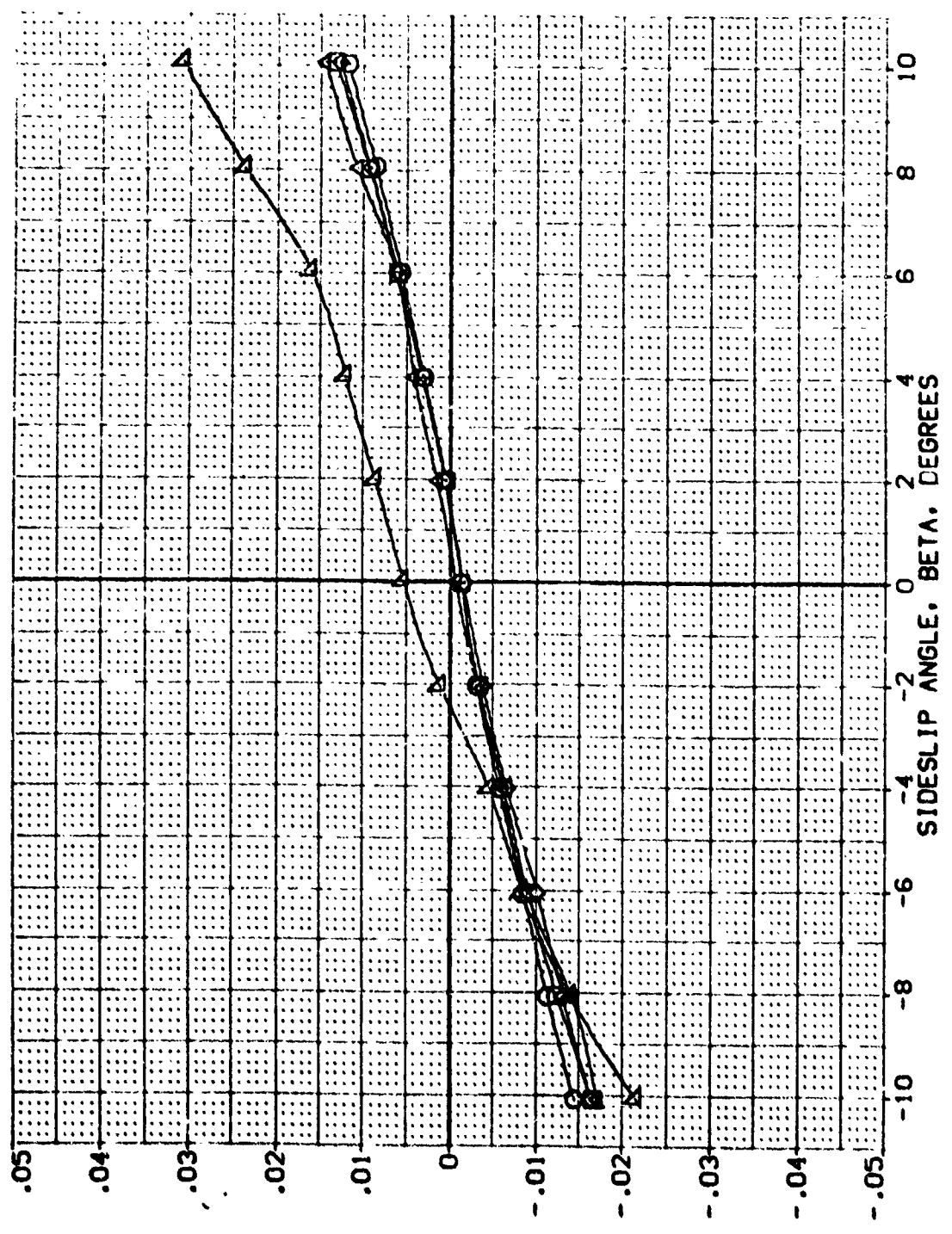


FIG 38 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE =25  
(A)MACH = .20  
PAGE 413

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AILRON	REFERENCE INFORMATION
(RDZ091)	0A62B B26C9G1SMT78 V11E28V8FSX9	.000	.000	25.000	.000	SREF 4.4119 SO.FT
(RDZ092)	0A62B B26C9G1SMT78 V11E28V8FSX9	5.000	.000	25.000	.000	LREF 19.2299 INCHES
(RDZ093)	0A62B B26C9G1SMT78 V11E28V8FSX9	10.000	.000	25.000	.000	BREF 37.9359 INCHES
(RDZ094)	0A62B B26C9G1SMT78 V11E28V8FSX9	15.000	.000	25.000	.000	XMRP 43.5974 INCHES
(RDZ095)	0A62B B26C9G1SMT78 V11E28V8FSX9	20.000	.000	25.000	.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

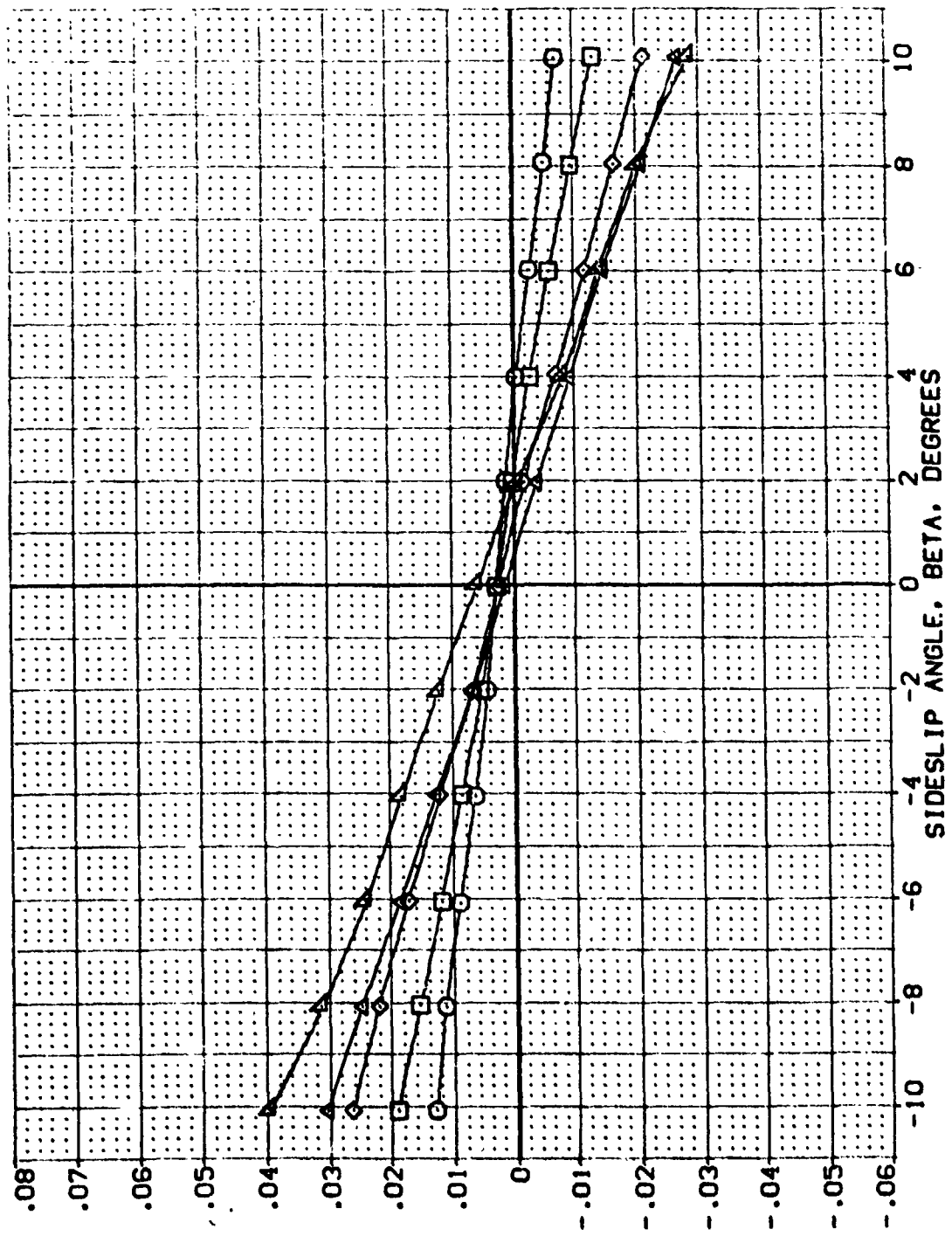


FIG 38 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 25  
MACH = .20 PAGE 414

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AIRLON	REFERENCE INFORMATION
(R02091)	04628 B26C9G1S47F8 V116E28V85SX9	.000	.000	25.000	.000	SREF 4.4119 SQ.FT.
(R02092)	04628 B26C9G1S47F8 V116E28V85SX9	5.000	.000	25.000	.000	LREF 19.2293 INCHES
(R02093)	04628 B26C9G1S47F8 V116E28V85SX9	10.000	.000	25.000	.000	BREF 37.9359 INCHES
(R02094)	04628 B26C9G1S47F8 V116E28V85SX9	15.000	.000	25.000	.000	YMRP 43.5974 INCHES
(R02095)	04628 B26C9G1S47F8 V116E28V85SX9	20.000	.000	25.000	.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

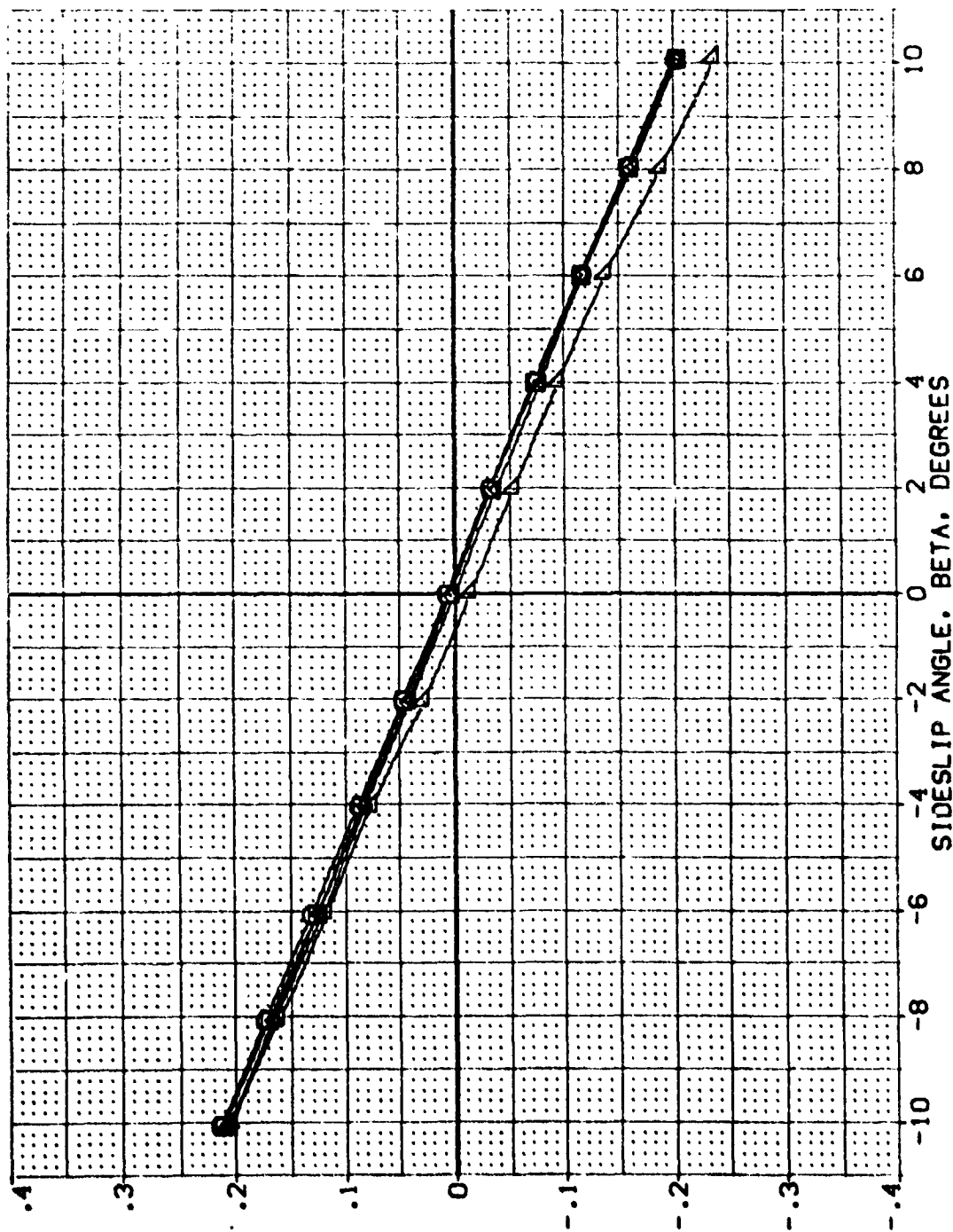


FIG 38 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE =25  
(A)MACH = .20

(CDZ093)

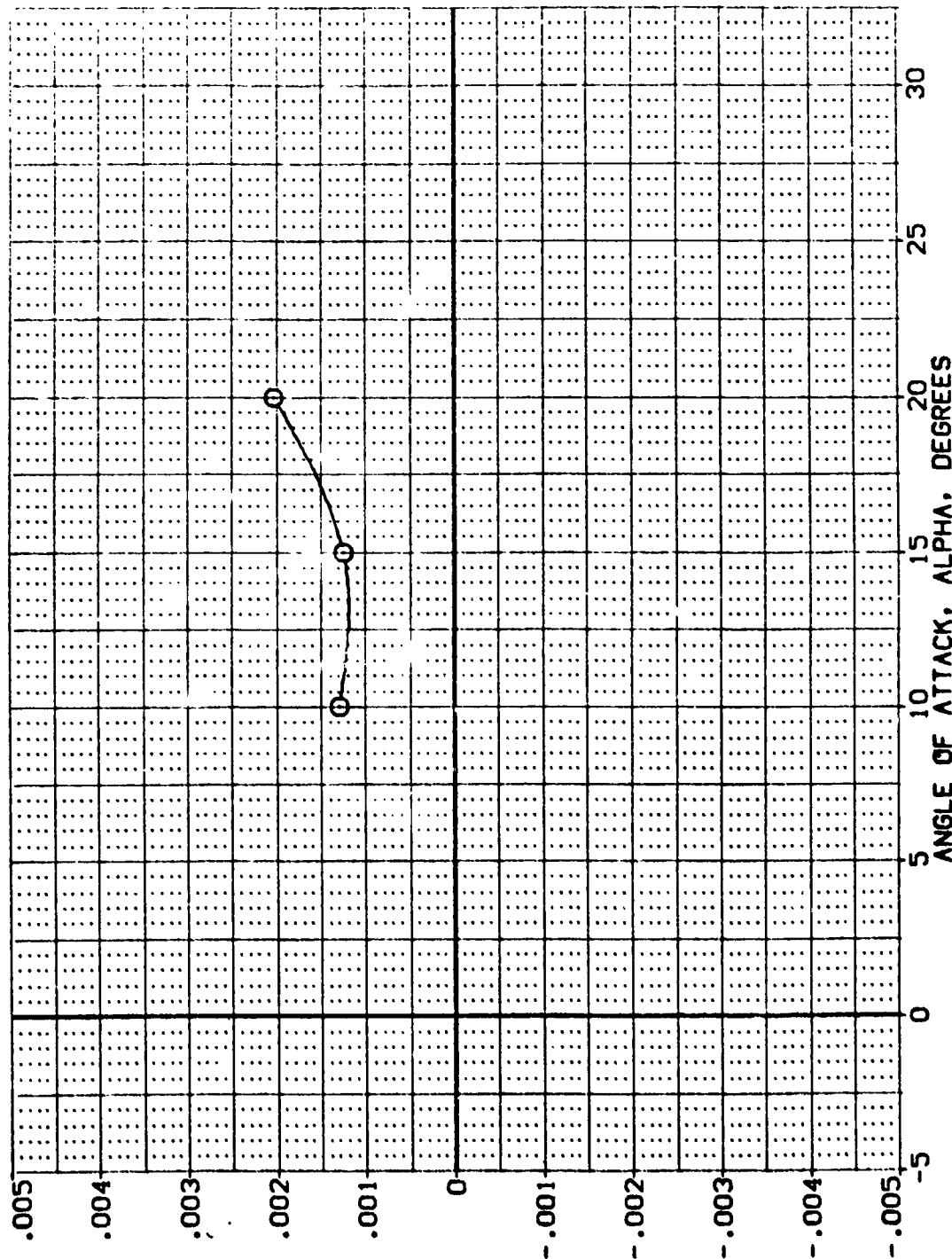
0A62B B26C9G15M7F8 W116E28V8R5X9

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

PARAMETRIC VALUES  
MACH .200 BOFLAP -12.000  
AILRON .000 RUDDER .000  
SPDRK 25.000

SYMBOL  
O

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE



16 38 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 25

SYMBOL  
O

0A628 826C9G15M7F8 W116E28V8R5X9  
(CDZ093)

PARAMETRIC VALUES  
MACH .200 BOFLAP -12.000  
AILERON .000 RUDDER .000  
SPDRK 25.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP 15.0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

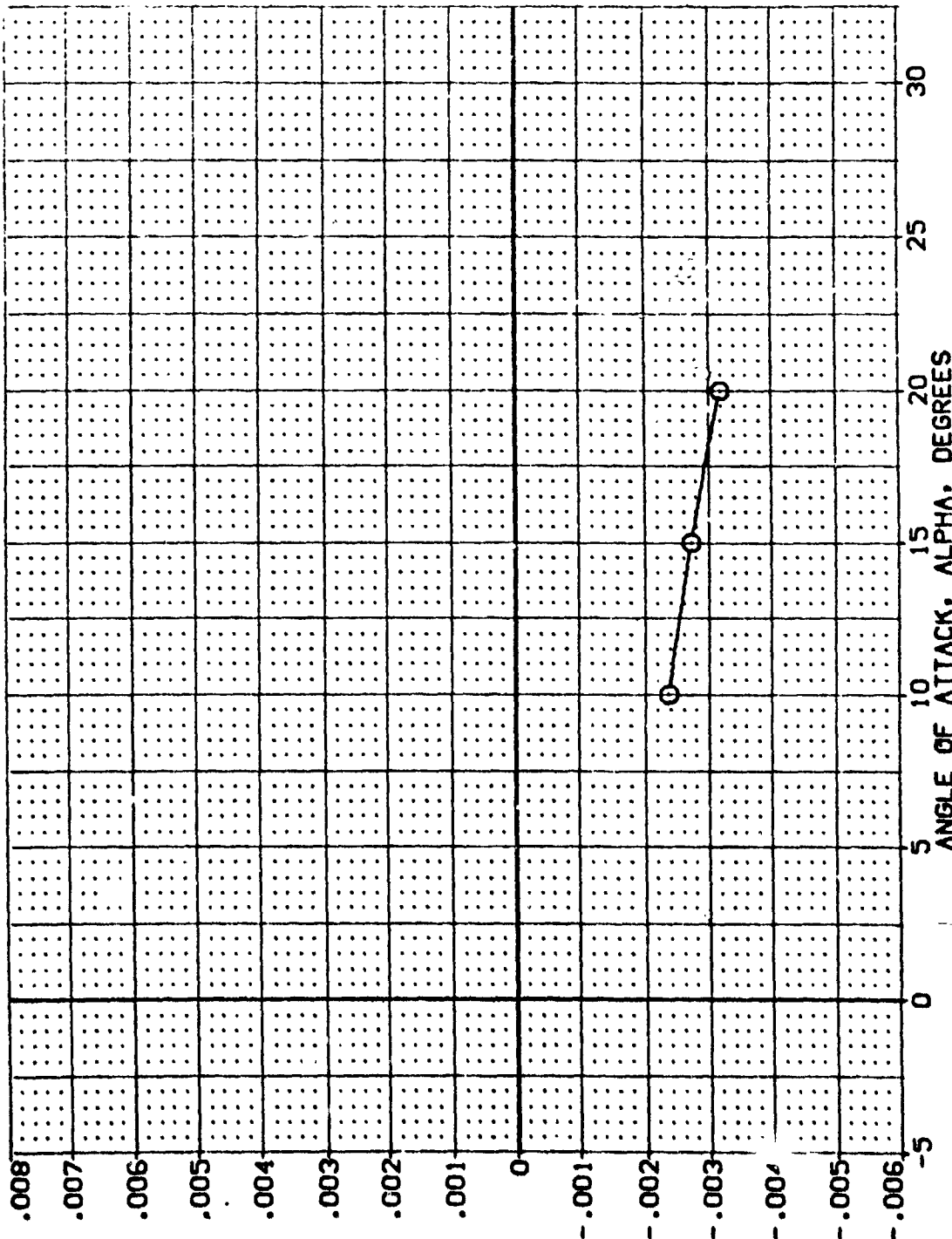


FIG 38 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 25

SYMBOL	ELEVON	MACH	PARAMETRIC VALUES
O	.000	AIRLIFT	BOLAP -12.000
		SPDRK	RUDER .000
			25.000

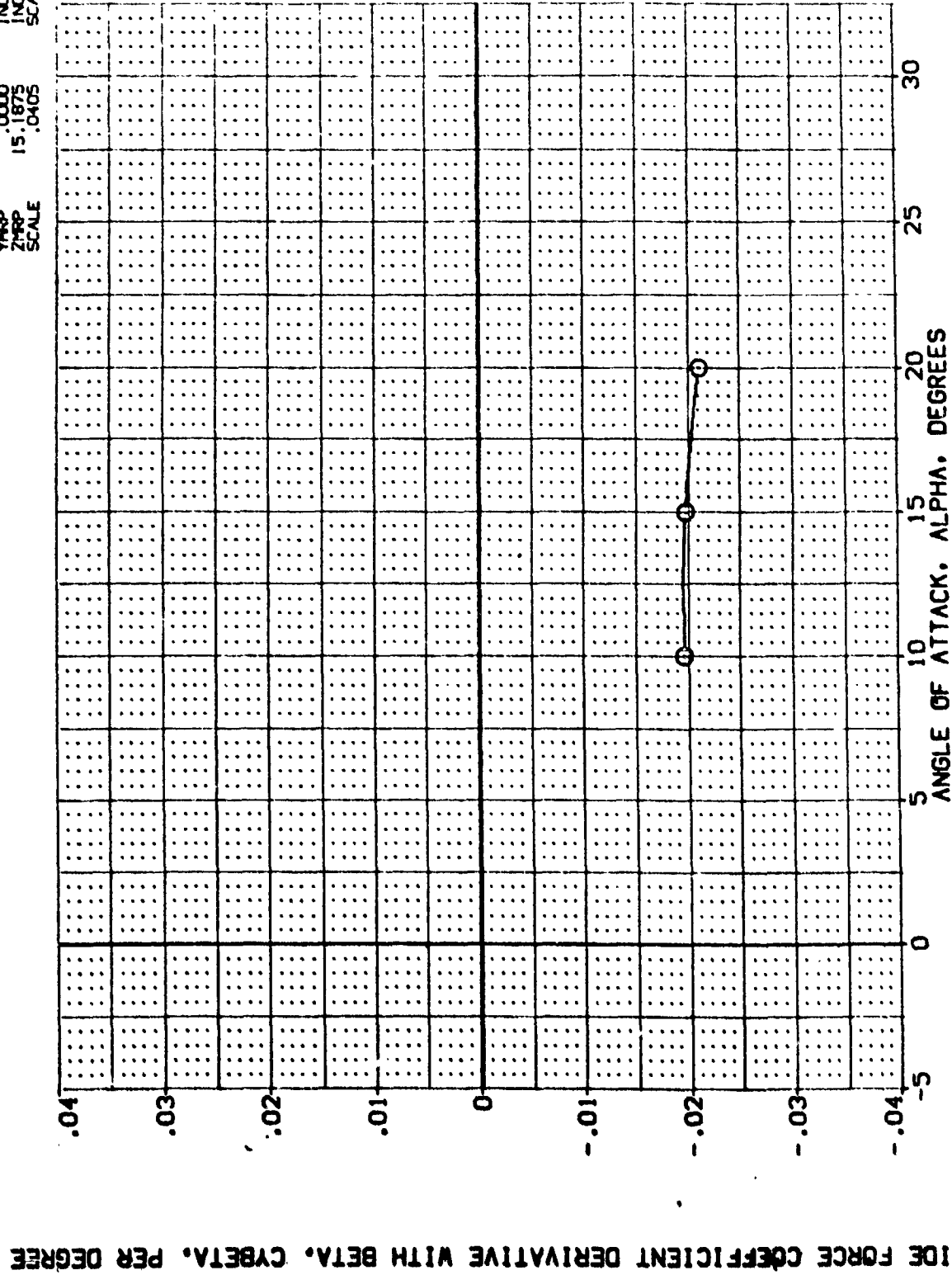


FIG 38 LATERAL/DIRECTIONAL STABILITY, GEAR DOWN, ELEVON = 0, RUDDER FLARE = 25

DATA SET SYMBO	CONFIGURATION DESCRIPTION	ELEVON	SPORBN	BDFLAP	NUDGER	REFERENCE INFORMATION
{80Z 11}	04528 B05C9 M7F8 V115E28V8F5X9	-5.000	25.000	-12.000	.000	BREF 4.4119 SO.FT.
{80Z 12}	04528 B05C9 M7F8 V115E28V8F5X9	5.000	25.000	-12.000	.000	UREF 19.2759 INO-ES
{80Z 13}	04528 B05C9 M7F8 V115E28V8F5X9	10.000	25.000	-12.000	.000	BREF 37.9359 INO-ES
{80Z 14}	04528 B05C9 M7F8 V115E28V8F5X9	15.000	25.000	-12.000	.000	XREF 43.5974 INO-ES
						YREF .0003 INO-ES
						ZREF 15.1675 INO-ES
						SCALE .0405 SCALE

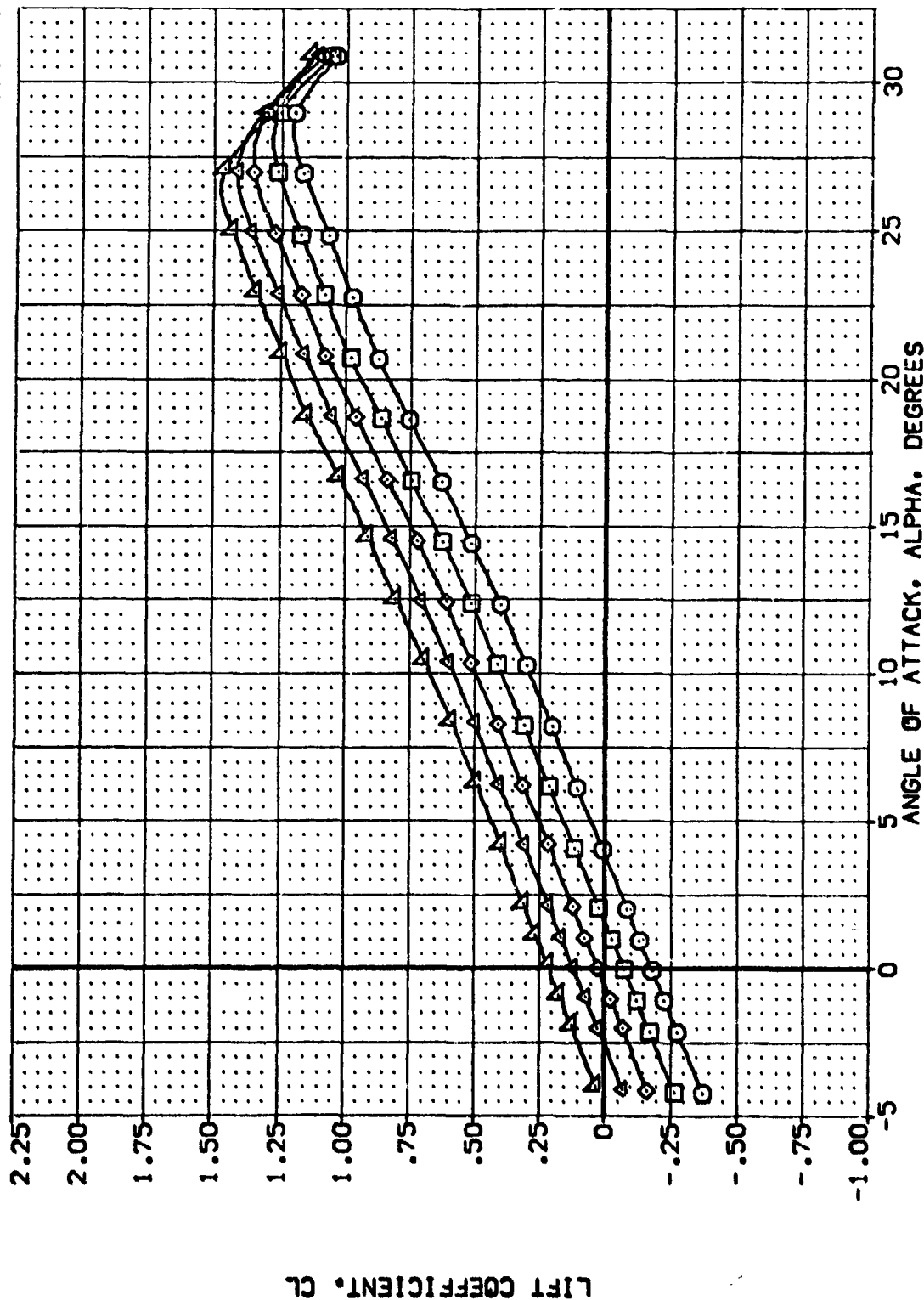


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

CAJMACH = .20

DATA SET SYMB.	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	BDLAP	RLODR	REFERENCE INFORMATION
(BDZ111)	0A628 B26C3 MTF8 V116E28V8F5X9	-5.000	25.000	-12.000	.000	SREF 4.4119 50.FT
(BDZ117)	0A628 B26C3 MTF8 V116E28V8F5X9	5.000	25.000	-12.000	.000	LREF 19.2258 INCHES
(BDZ115)	0A628 B26C3 MTF8 V116E28V8F5X9	10.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(BDZ114)	0A628 B26C3 MTF8 V116E28V8F5X9	15.000	25.000	-12.000	.000	MREF 43.5974 INCHES
(BDZ112)	0A628 B26C3 MTF8 V116E28V8F5X9					ZMRP .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

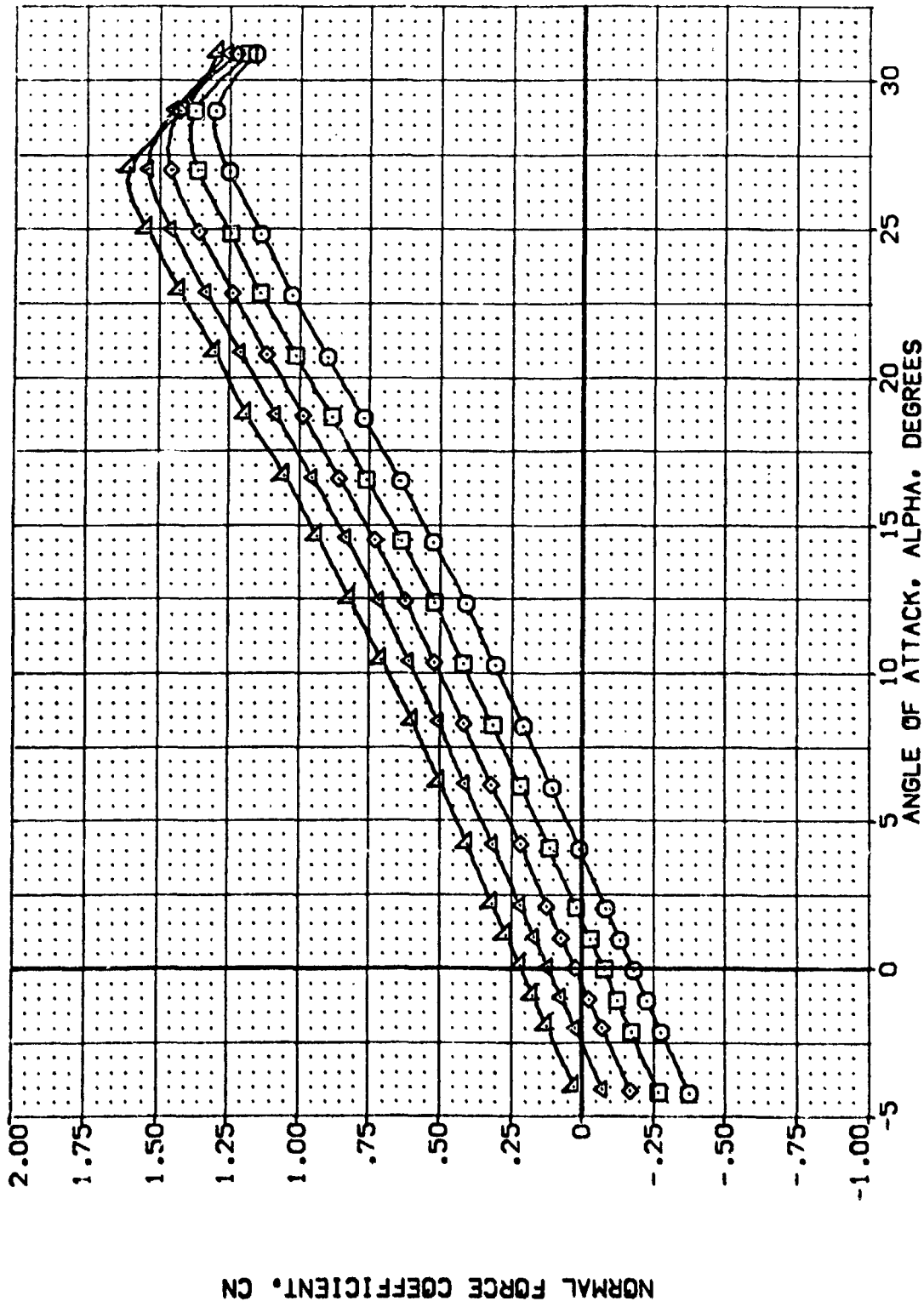


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

CAJ MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORWK	BDFLAP	RUDDER	REFERENCE INFORMATION
(BDZ111)	0A628 B28C3 M7F8 V116E28V8F5X9	-5.000	25.000	-12.000	.000	SREF 4.4119 SO.FT. INO-ES
(BDZ117)	0A628 B28C3 M7F8 V116E28V8F5X9	5.000	25.000	-12.000	.000	LREF 19.2299 INO-ES
(BDZ115)	0A628 B28C3 M7F8 V116E28V8F5X9	10.000	25.000	-12.000	.000	BREF 37.9359 INO-ES
(BDZ114)	0A628 B28C3 M7F8 V116E28V8F5X9	15.000	25.000	-12.000	.000	XREF 43.5974 INO-ES
(BDZ112)	0A628 B28C3 M7F8 V116E28V8F5X9					YREF .0000 INO-ES
						ZREF 15.1875 INO-ES
						SCALE .0405

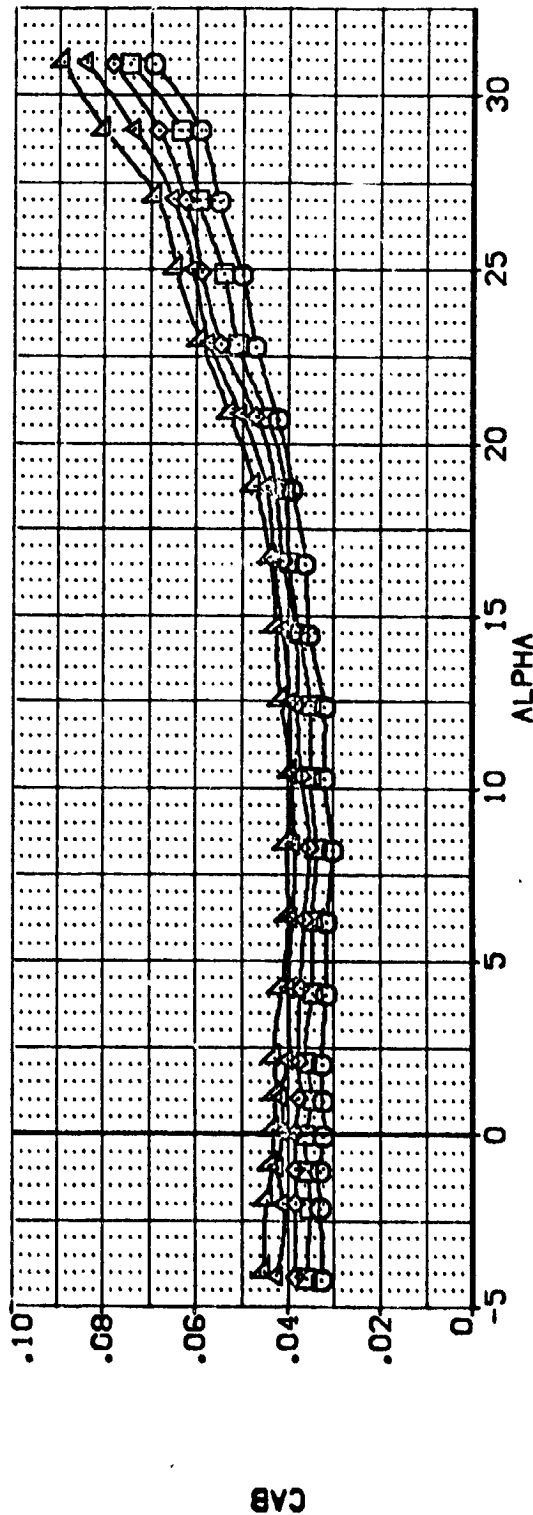
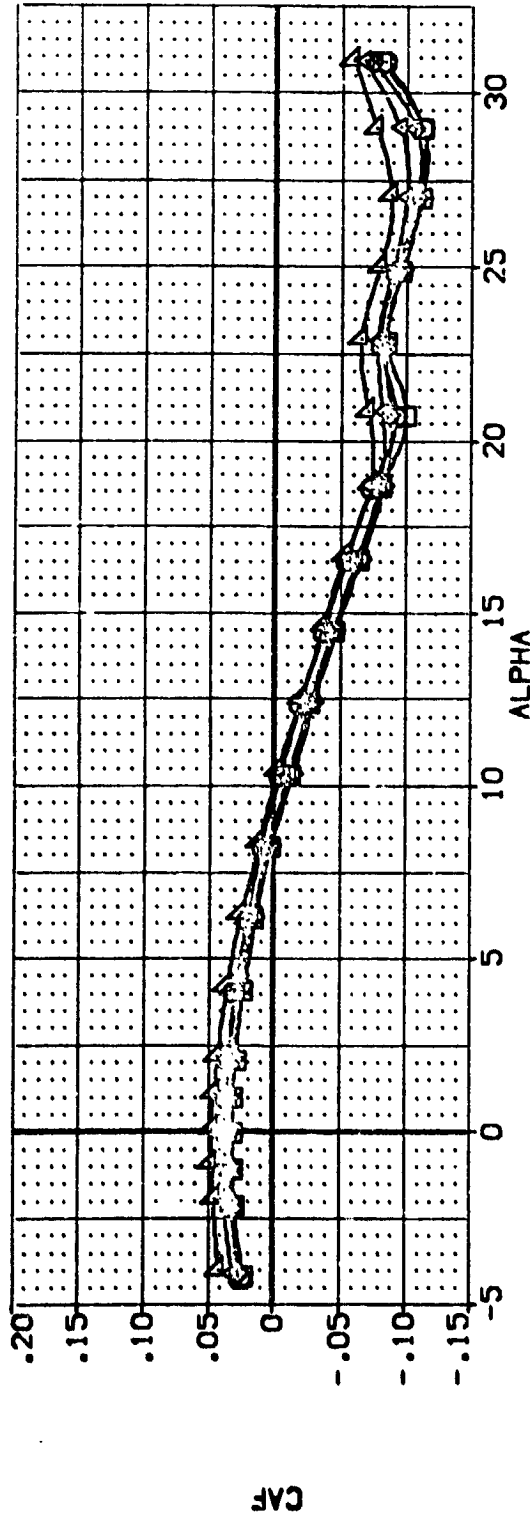


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOONK	BOFLAP	RUDDER	REFERENCE INFORMATION
(802111)	04528 B26C3 M7F8 V116E28V85V3	-5.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(802117)	04528 B26C3 M7F8 V116E28V85V3	.000	25.000	-12.000	.000	LINEF 19.2299 INCHES
(802115)	04528 B26C3 M7F8 V116E28V85V3	5.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(802114)	04528 B26C3 M7F8 V116E28V85V3	10.000	25.000	-12.000	.000	XMRP 43.5974 INCHES
(802112)	04528 B26C3 M7F8 V116E28V85V3	15.000	25.000	-12.000	.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

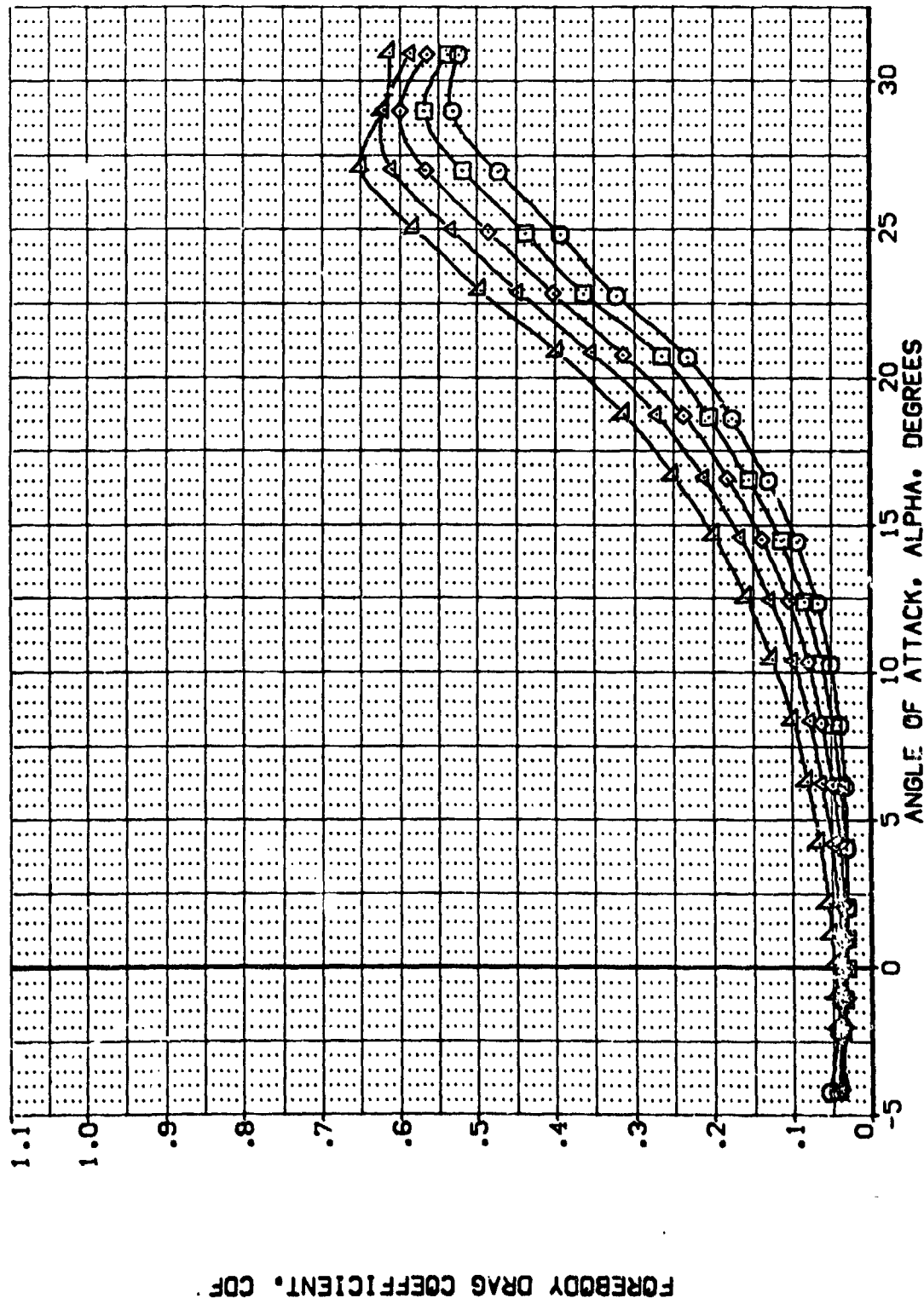


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

-CAMACH = .20

DATA SET SYMBO	CONF	QUATION	DESCRIPTION	ELEVON	SPD BRK	BD FLAP	RUDDER	REFERENCE INFORMATION
(BDZ111)	0A628	B28C3	MTF8	-5.000	25.000	-12.000	.000	REF 4.4119 SQ.FT.
(BDZ117)	0A628	B28C3	MTF8	5.000	25.000	-12.000	.000	REF 19.2388 INCHES
(BDZ115)	0A628	B28C3	MTF8	10.000	25.000	-12.000	.000	REF 37.8338 INCHES
(BDZ114)	0A628	B28C3	MTF8	15.000	25.000	-12.000	.000	REF 43.9874 INCHES
(BDZ112)	0A628	B28C3	MTF8					YMRP .0000 INCHES
								ZMRP 15.1875 INCHES
								SCALE .0405

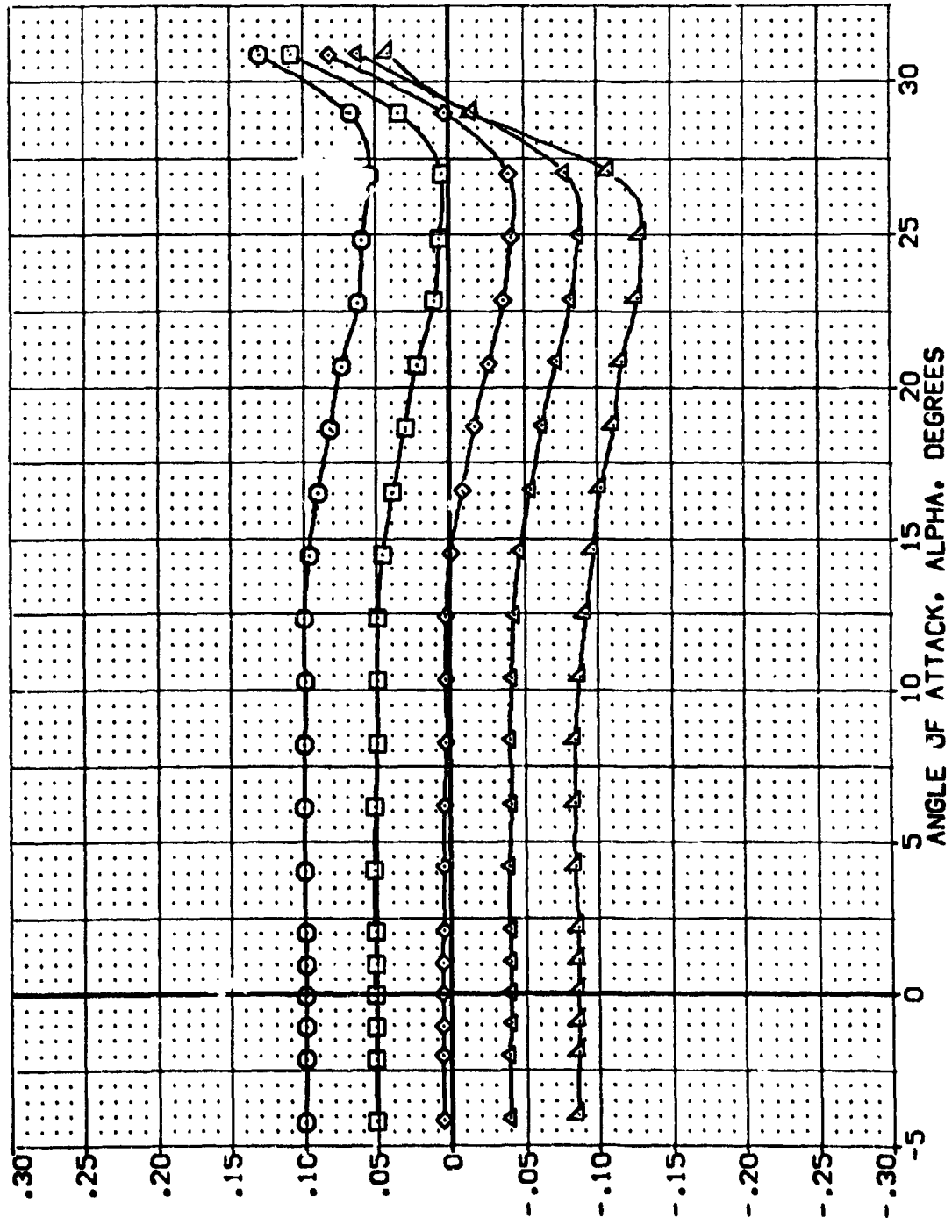


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

(A)MACH = .20

ELEVON	SPOTIN	BOFLAP	RUDDER	REFERENCE INFORMATION
-5.000	25.000	-12.000	.000	BREF 4.4119 SQ.FT.
5.000	25.000	-12.000	.000	LREF 19.2789 INCHES
10.000	25.000	-12.000	.000	BREF 37.5574 INCHES
15.000	25.000	-12.000	.000	XREF 43.5574 INCHES
				YREF .0000 INCHES
				ZREF 15.1875 INCHES
				SCALE .0405

DATA SET SYMBO	CONFIGURATION DESCRIPTION
(ECZ111)	04528 826C3 M7F8 V11E28V85X9
(B02117)	04528 826C3 M7F8 V11E28V85X9
(B02115)	04528 826C3 M7F8 V11E28V85X9
(B02114)	04528 826C3 M7F8 V11E28V85X9
(B02112)	04528 826C3 M7F8 V11E28V85X9

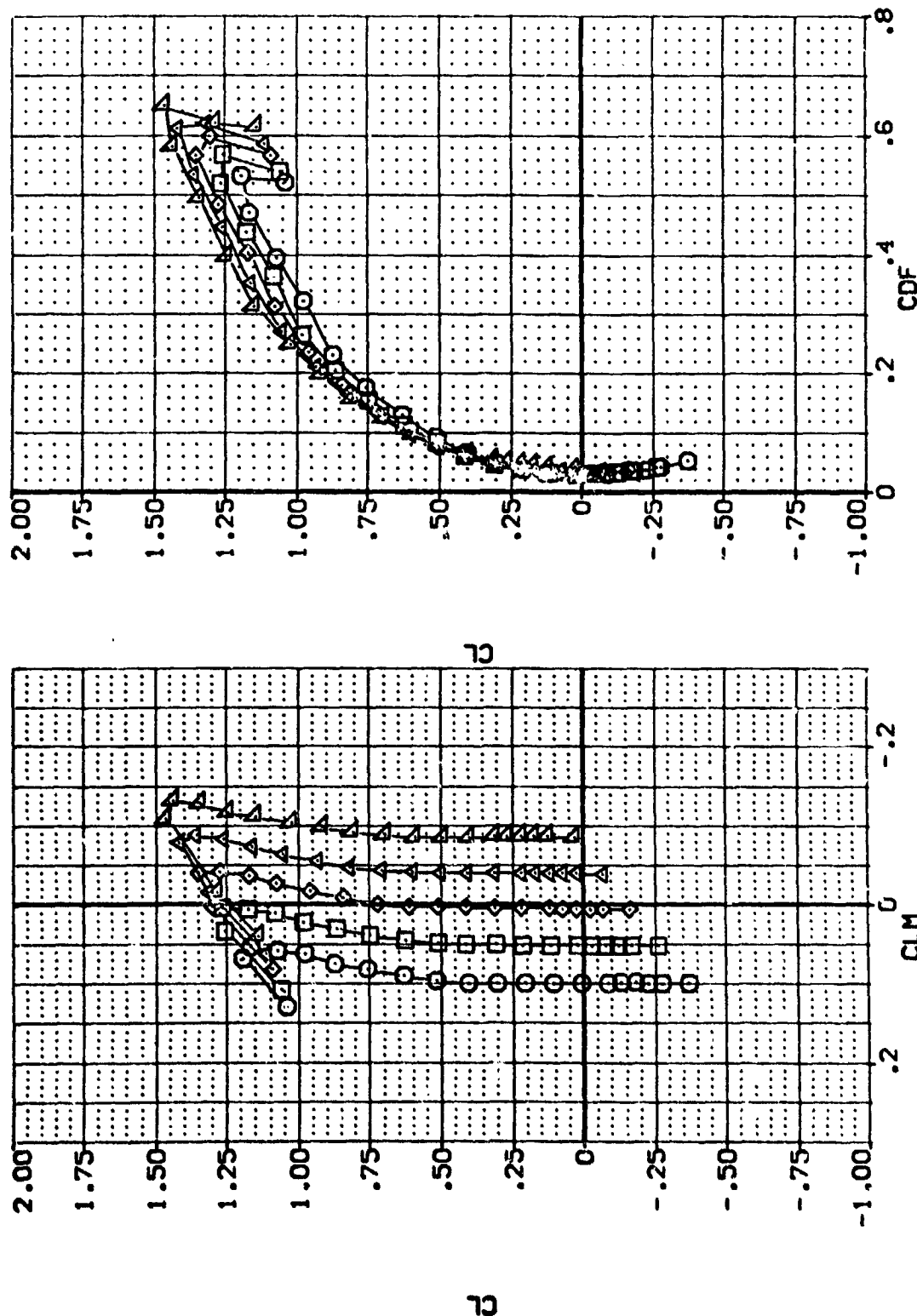
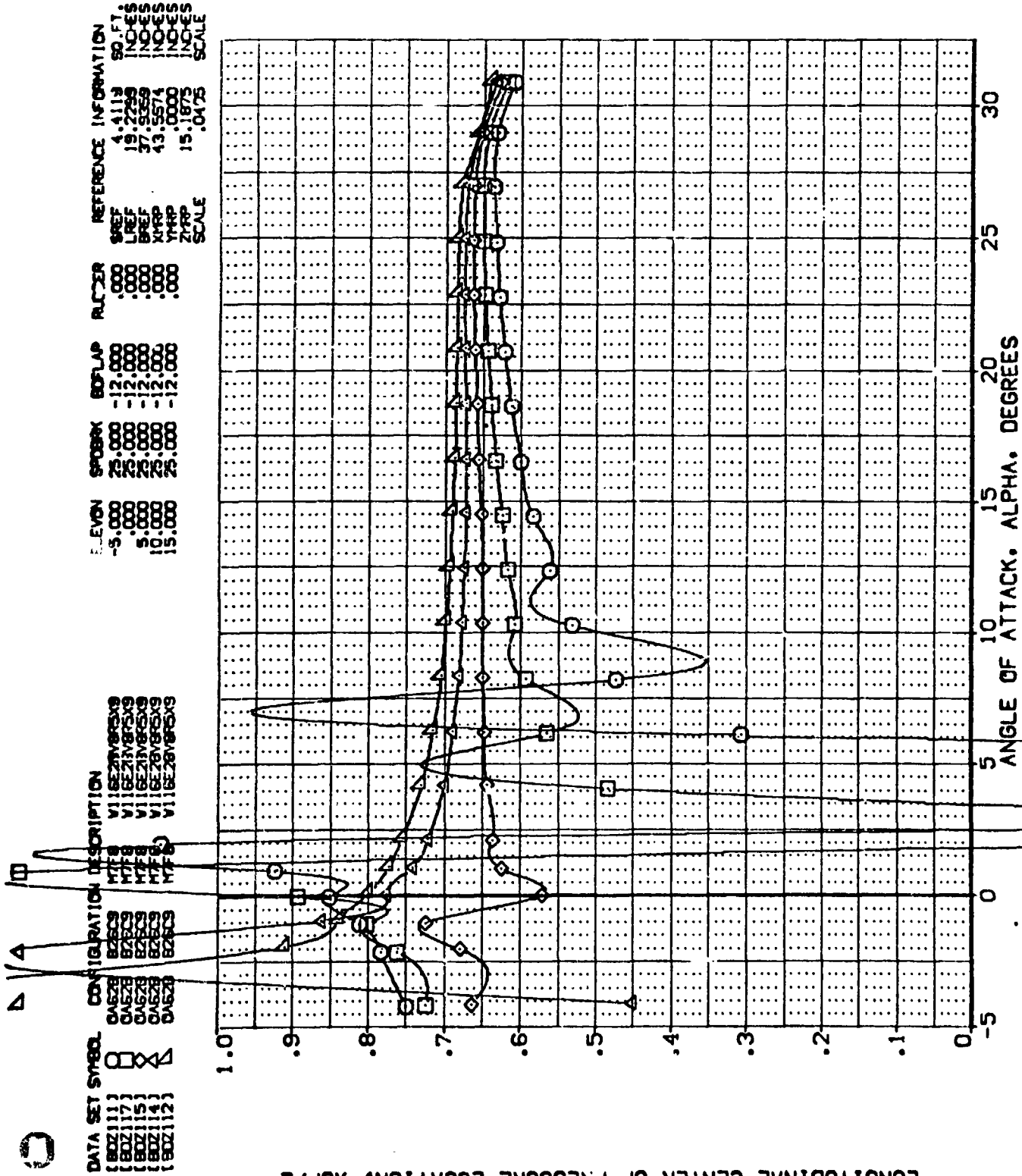


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

(A)MACH = .20

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPRINK	BOFLAP	MUOVER	REFERENCE INFORMATION
(B02111)	04628 B0629 M7F8 V116E28V8R5X9	-5.000	25.000	-12.000	.000	BREF 4.4118 50.00
(B02117)	04628 B0629 M7F8 V116E28V8R5X9	5.000	25.000	-12.000	.000	UREF 19.2238 100.00
(B02115)	04628 B0629 M7F8 V116E28V8R5X9	10.000	25.000	-12.000	.000	BREF 37.9059 100.00
(B02114)	04628 B0629 M7F8 V116E28V8R5X9	15.000	25.000	-12.000	.000	XREF 43.5874 100.00
(B02112)	04628 B0629 M7F8 V116E28V8R5X9					YREF .0000 100.00
						ZREF 15.1875 100.00
						SCALE .0405

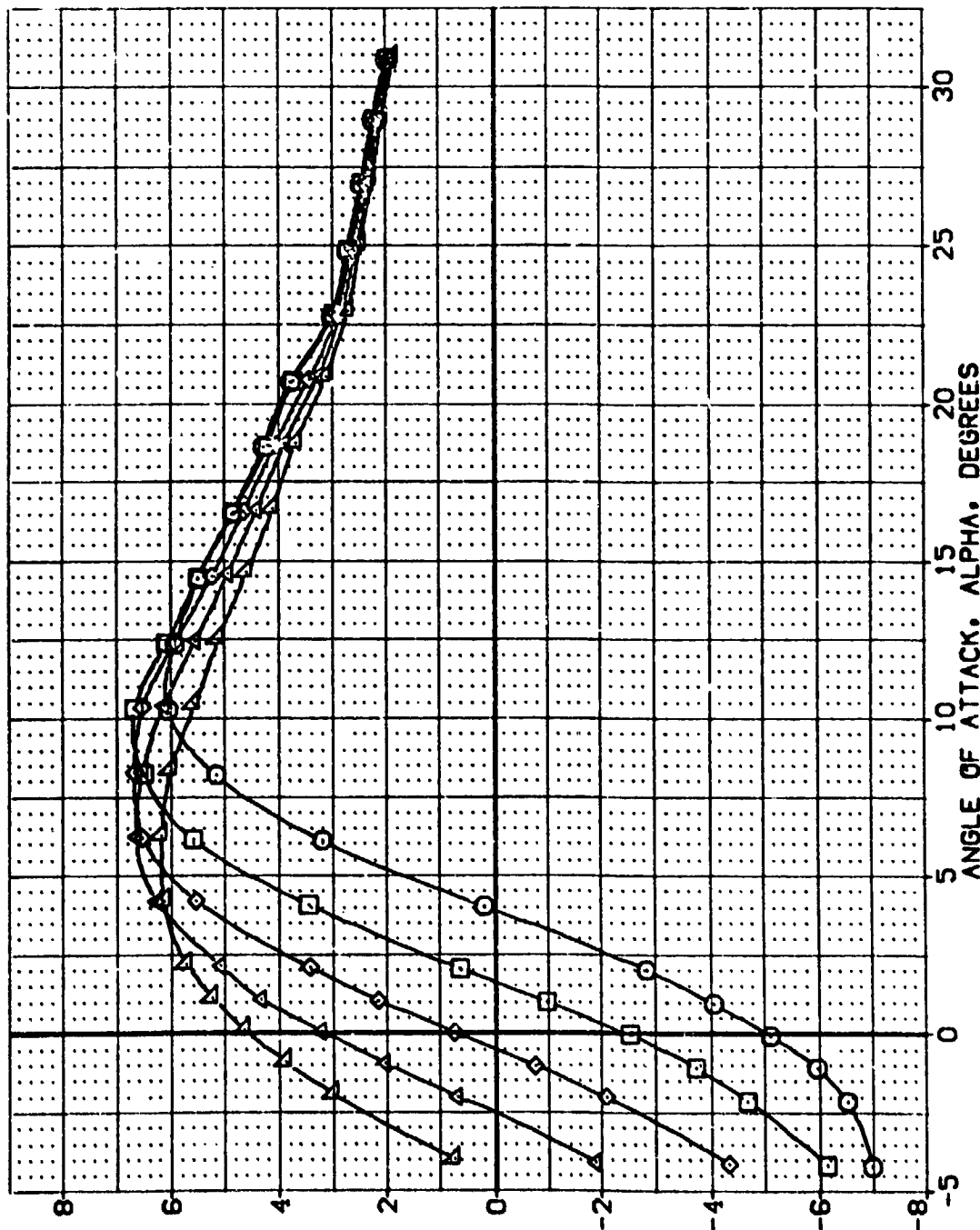


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

2

9

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	EOFLAP	RUDDER	REFERENCE INFORMATION
(B02105)	DA528 B026CS	-40.000	25.000	-12.000	.000	REF 4.4119 SQ.FT.
(B02106)	DA528 B026CS	-30.000	25.000	-12.000	.000	REF 19.2259 INCHES
(B02107)	DA528 B026CS	-20.000	25.000	-12.000	.000	REF 37.5359 INCHES
(B02108)	DA528 B026CS	-15.000	25.000	-12.000	.000	REF 43.5974 INCHES
(B02109)	DA528 B026CS	-10.000	25.000	-12.000	.000	REF 15.0000 INCHES
(B02117)	DA528 B026CS	-10.000	25.000	-12.000	.000	REF 15.1873 INCHES
						SCALE .0405

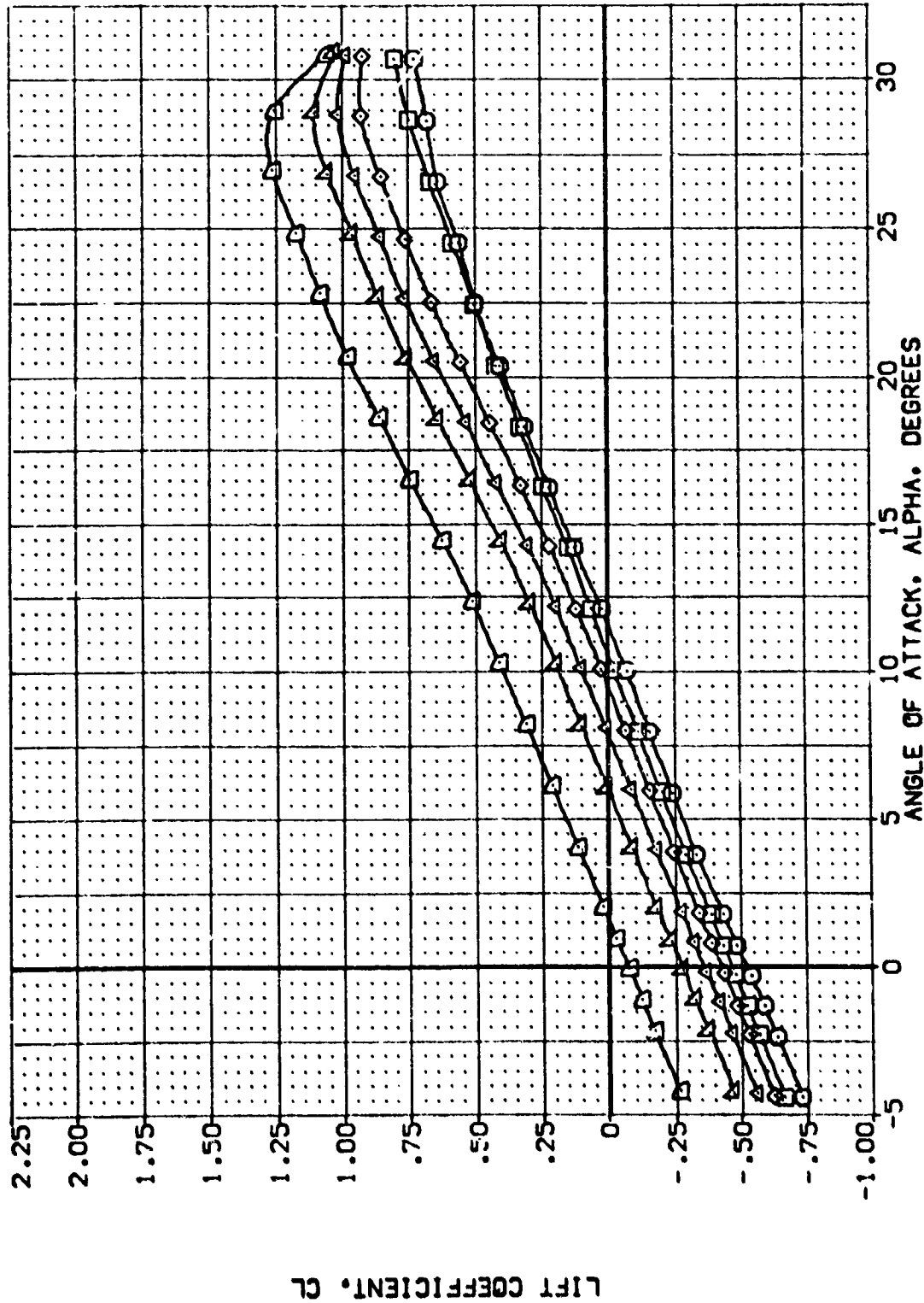


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOROK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B0Z105)	0A628 B26C3 MTF-8 V116E28V85C3	-40.000	25.000	-12.000	.000	4.4119 50.47
(B0Z106)	0A628 B26C3 MTF-8 V116E28V85C3	-30.000	25.000	-12.000	.000	19.2259 INOE-S
(B0Z107)	0A628 B26C3 MTF-8 V116E28V85C3	-20.000	25.000	-12.000	.000	37.9359 INOE-S
(B0Z108)	0A628 B26C3 MTF-8 V116E28V85C3	-15.000	25.000	-12.000	.000	43.5974 INOE-S
(B0Z109)	0A628 B26C3 MTF-8 V116E28V85C3	-10.000	25.000	-12.000	.000	15.0000 INOE-S
(B0Z117)	0A628 B26C3 MTF-8 V116E28V85C3	.000	25.000	-12.000	.000	15.1875 INOE-S
						SCALE .0405

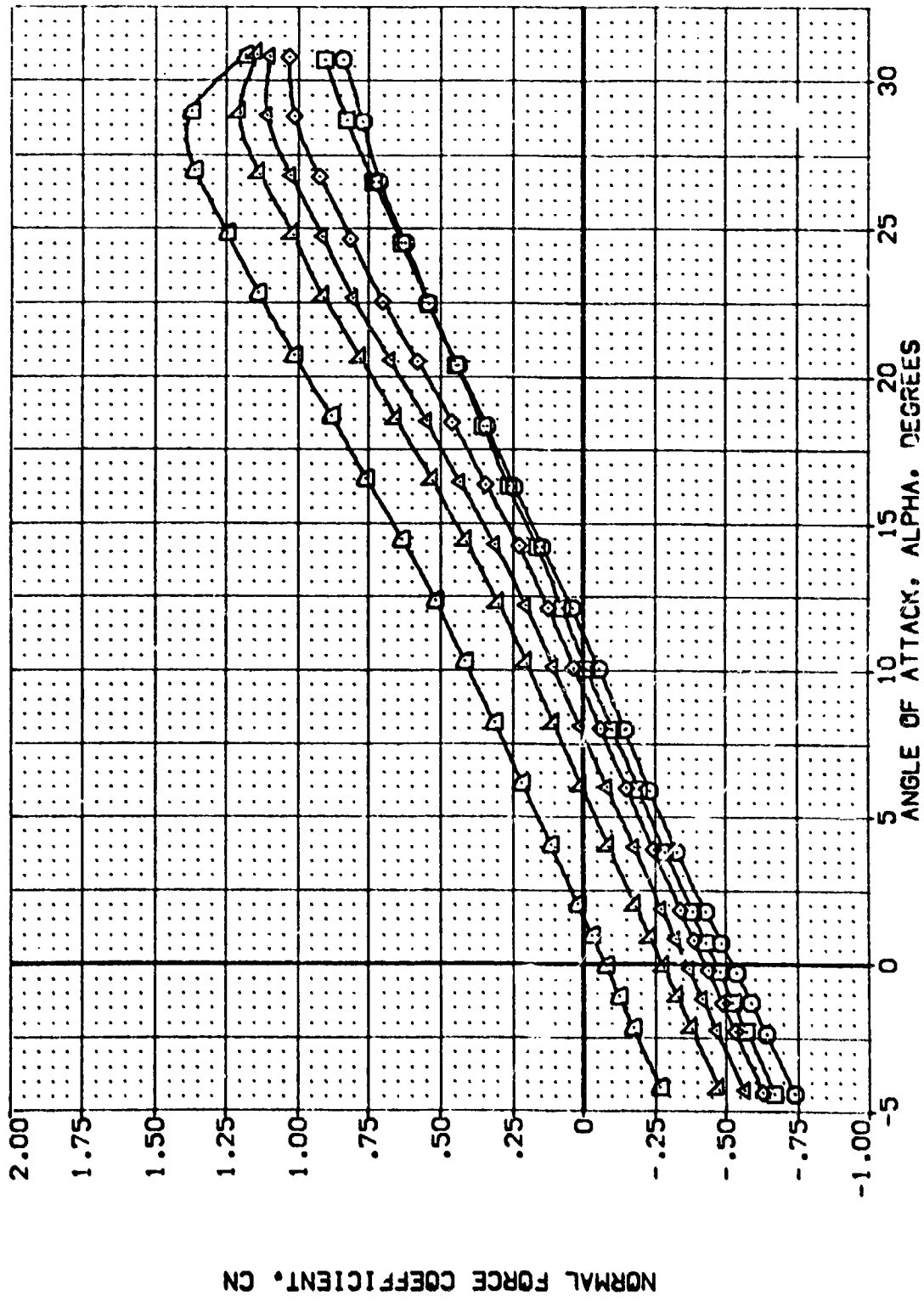


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

MAJ MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BOFLAP	RUDER	REFERENCE INFORMATION
(B0Z105)	0A5Z8 8Z8C3 M7F8 V116Z28/8P5V3	-40.000	25.000	-12.000	.000	SREF 4.4119 SO.FT.
(B0Z106)	0A5Z8 8Z8C3 M7F8 V116Z28/8P5V3	-30.000	25.000	-12.000	.000	LREF 19.2299 INO-ES
(B0Z107)	0A5Z8 8Z8C3 M7F8 V116Z28/8P5V3	-20.000	25.000	-12.000	.000	BREF 37.5359 INO-ES
(B0Z108)	0A5Z8 8Z8C3 M7F8 V116Z28/8P5V3	-15.000	25.000	-12.000	.000	XREF 43.5974 INO-ES
(B0Z109)	0A5Z8 8Z8C3 M7F8 V116Z28/8P5V3	-10.000	25.000	-12.000	.000	YREF .0000 INO-ES
(B0Z117)	0A5Z8 8Z8C3 M7F8 V116Z28/8P5V3	.000	25.000	-12.000	.000	ZREF 15.1873 INO-ES
						SCALE .0403

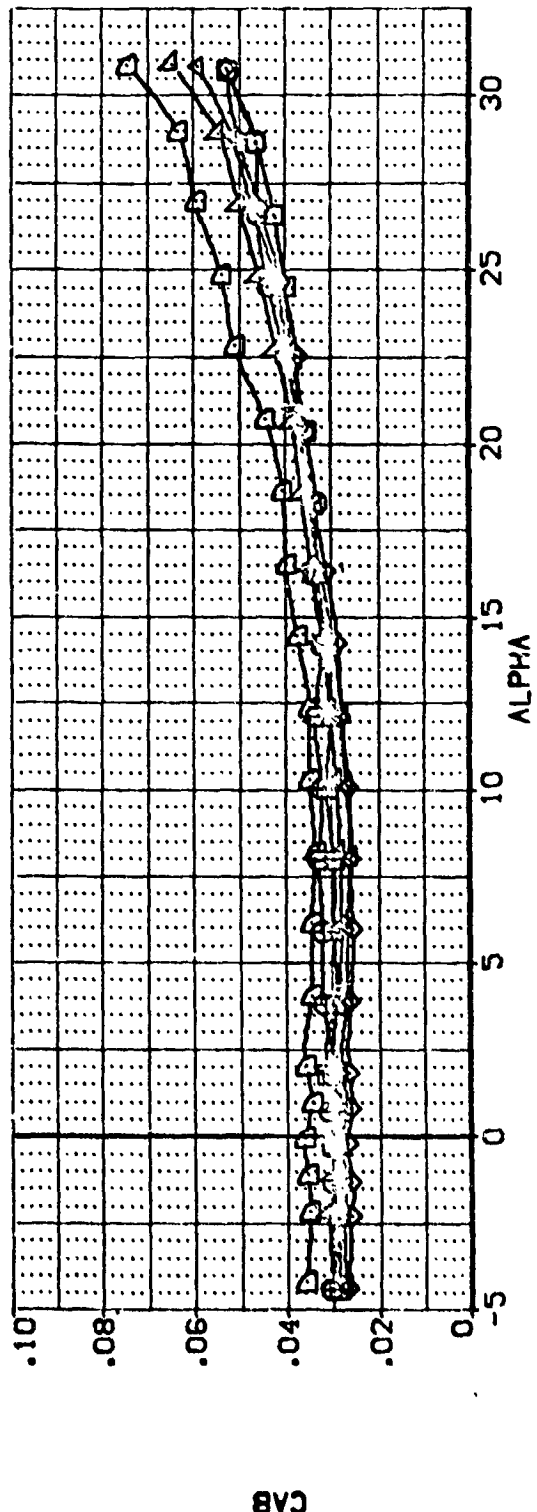
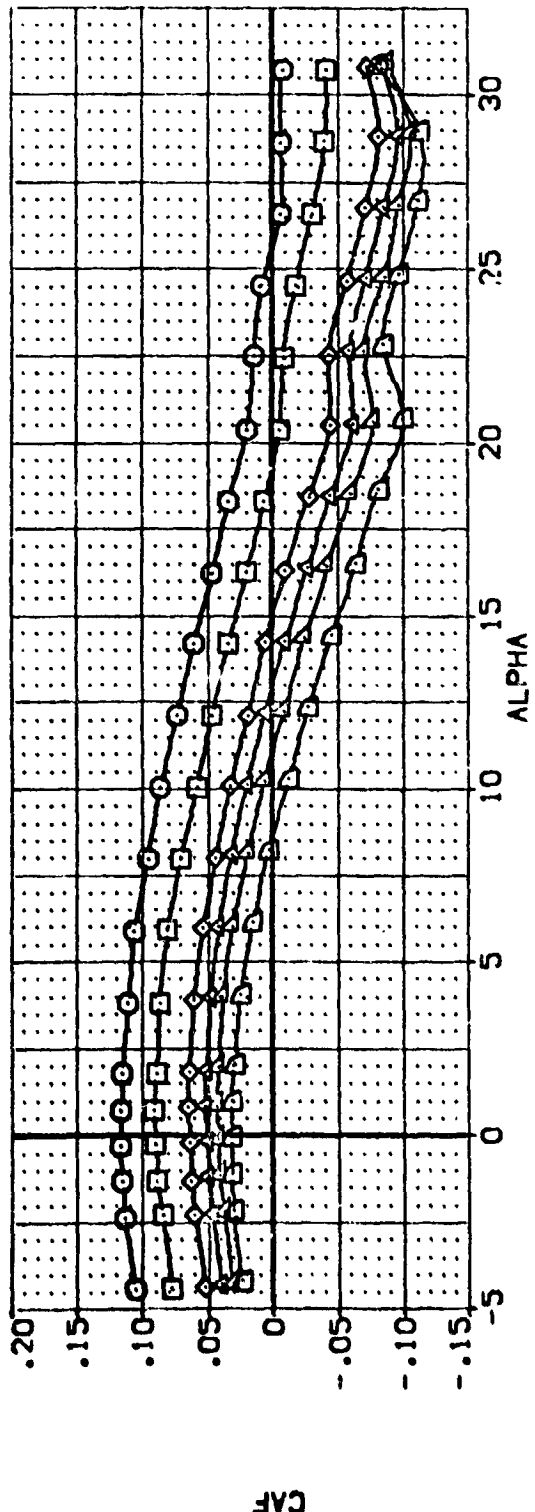


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP  
CAJMACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOILER	BOFLAP	RUDDER	REFERENCE INFORMATION
[80Z105]	0A628 B26C3 M7F8 V116E28V85X9	-1.000	25.000	-12.000	.000	SREF 4.119 50.FT
[80Z106]	0A628 B26C3 M7F8 V116E28V85X9	-2.000	25.000	-12.000	.000	LREF 19.2299 INOES
[80Z107]	0A628 B26C3 M7F8 V116E28V85X9	-3.000	25.000	-12.000	.000	BREF 37.5359 INOES
[80Z108]	0A628 B26C3 M7F8 V116E28V85X9	-15.000	25.000	-12.000	.000	XREF 43.5974 INOES
[80Z109]	0A628 B26C3 M7F8 V116E28V85X9	-10.000	25.000	-12.000	.000	YREF .0000 INOES
[80Z117]	0A628 B26C3 M7F8 V116E28V85X9	-10.000	25.000	-12.000	.000	ZREF 15.1875 INOES
						SCALE .0405

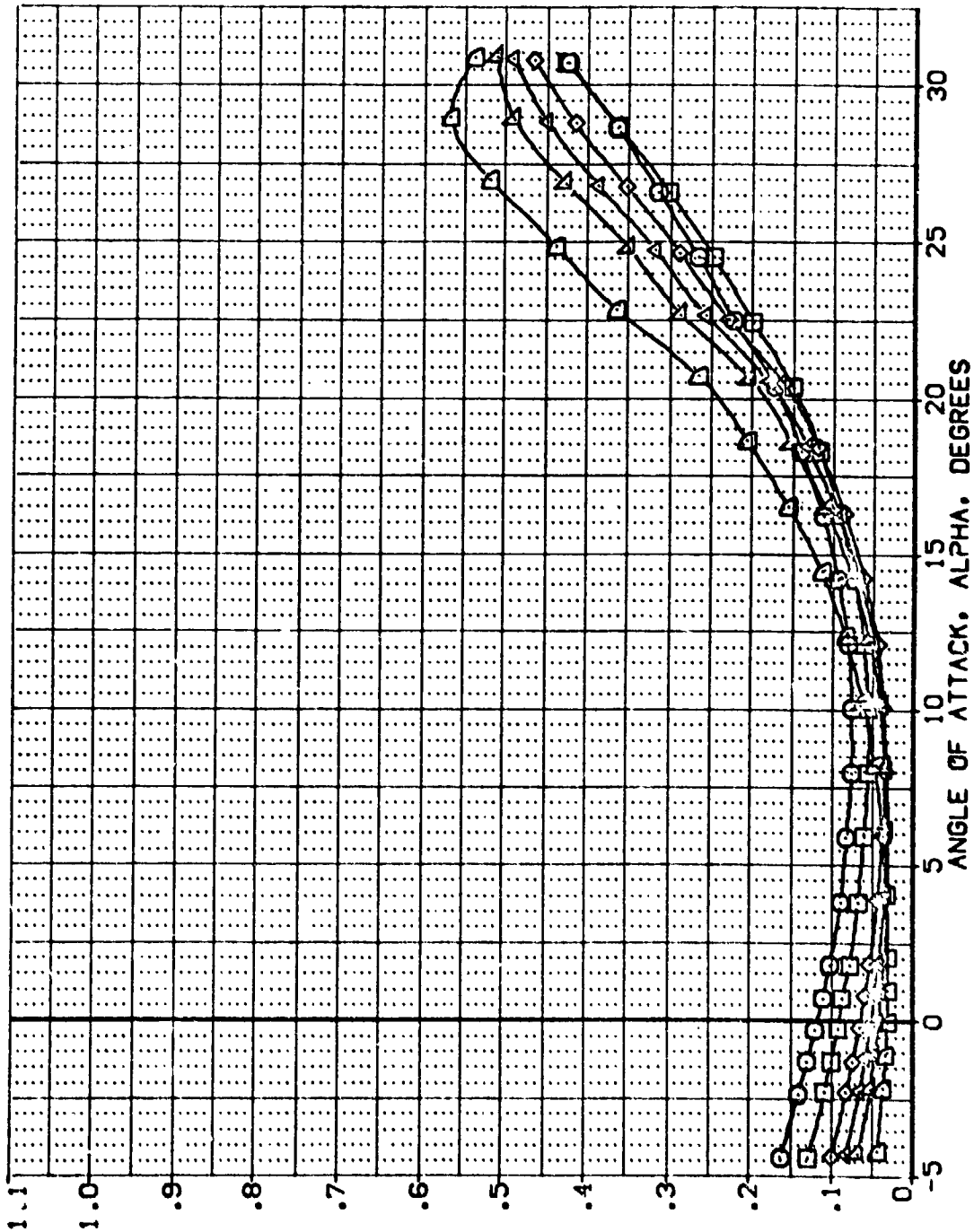


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

CLAMACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORON	ROFLAP	RUDDER	REFERENCE INFORMATION
[802105]	DA528 B05C9 M7F8 V116E28V8R5X9	-40.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
[802106]	DA528 B05C9 M7F8 V116E28V8R5X9	-30.000	25.000	-12.000	.000	UREF 19.2789 INCHES
[802107]	DA528 B05C9 M7F8 V116E28V8R5X9	-20.000	25.000	-12.000	.000	BREF 37.5359 INCHES
[802108]	DA528 B05C9 M7F8 V116E28V8R5X9	-15.000	25.000	-12.000	.000	XREF 43.5974 INCHES
[802109]	DA528 B05C9 M7F8 V116E28V8R5X9	-10.000	25.000	-12.000	.000	YREF .0000 INCHES
[802117]	DA528 B05C9 M7F8 V116E28V8R5X9				.030	ZREF 15.1875 INCHES
						SCALE .0405

PITCHING MOMENT COEFFICIENT, CLM

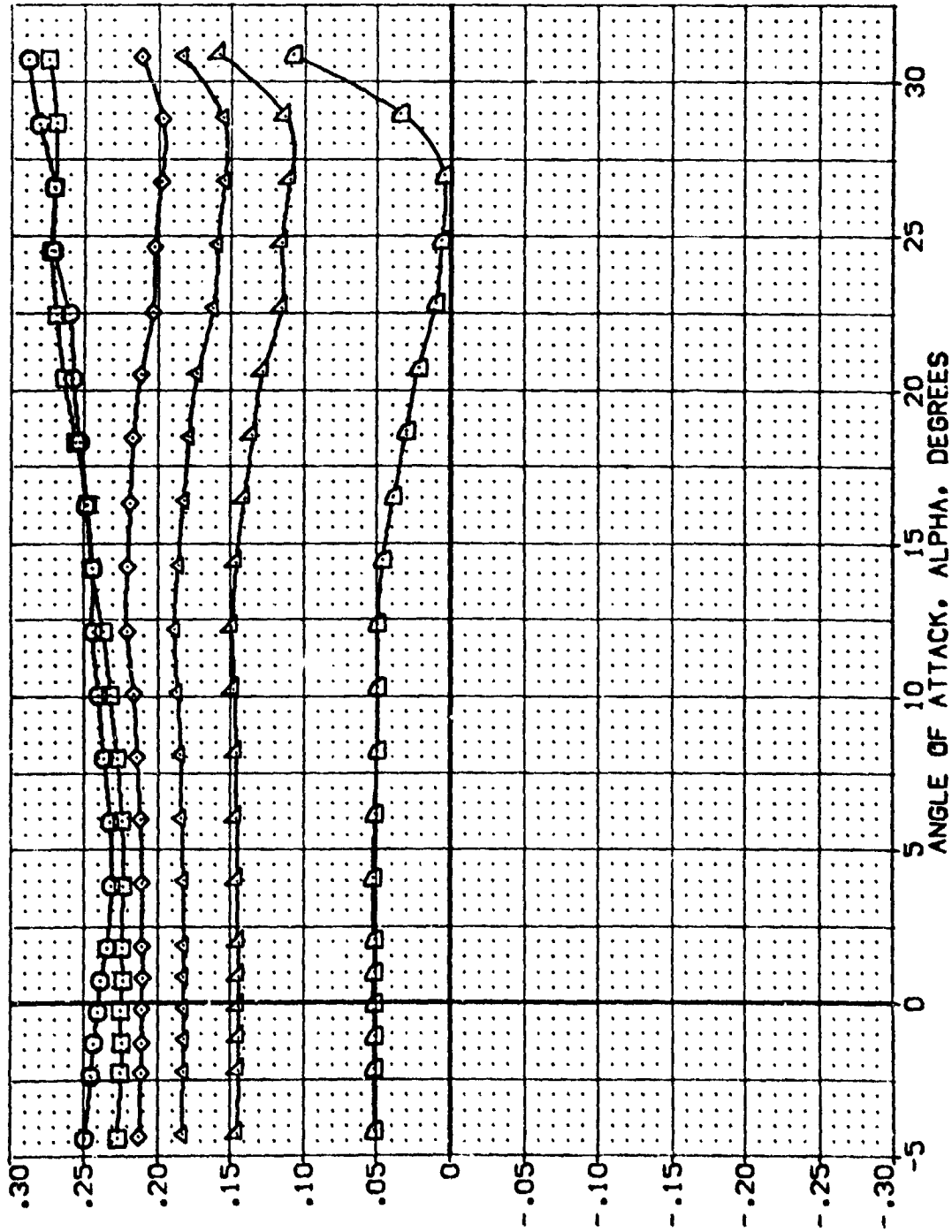


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

(CA)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BDFLAP	RUDDER	REFERENCE INFORMATION
{B0Z105}	0A528 B26C9 M7F8 V116E28V85X9	-40.000	25.000	-12.000	.000	SREF 4.4119 89.471
{B0Z106}	0A528 B26C9 M7F8 V116E28V85X9	-30.000	25.000	-12.000	.000	UREF 19.2298 100.000
{B0Z107}	0A528 B26C9 M7F8 V116E28V85X9	-20.000	25.000	-12.000	.000	BREF 37.5359 100.000
{B0Z108}	0A528 B26C9 M7F8 V116E28V85X9	-15.000	25.000	-12.000	.000	XREF 43.5974 100.000
{B0Z109}	0A528 B26C9 M7F8 V116E28V85X9	-10.000	25.000	-12.000	.000	YREF 15.1875 100.000
{B0Z117}	0A528 B26C9 M7F8 V116E28V85X9	.000	25.000	-12.000	.000	ZREF .0405 100.000

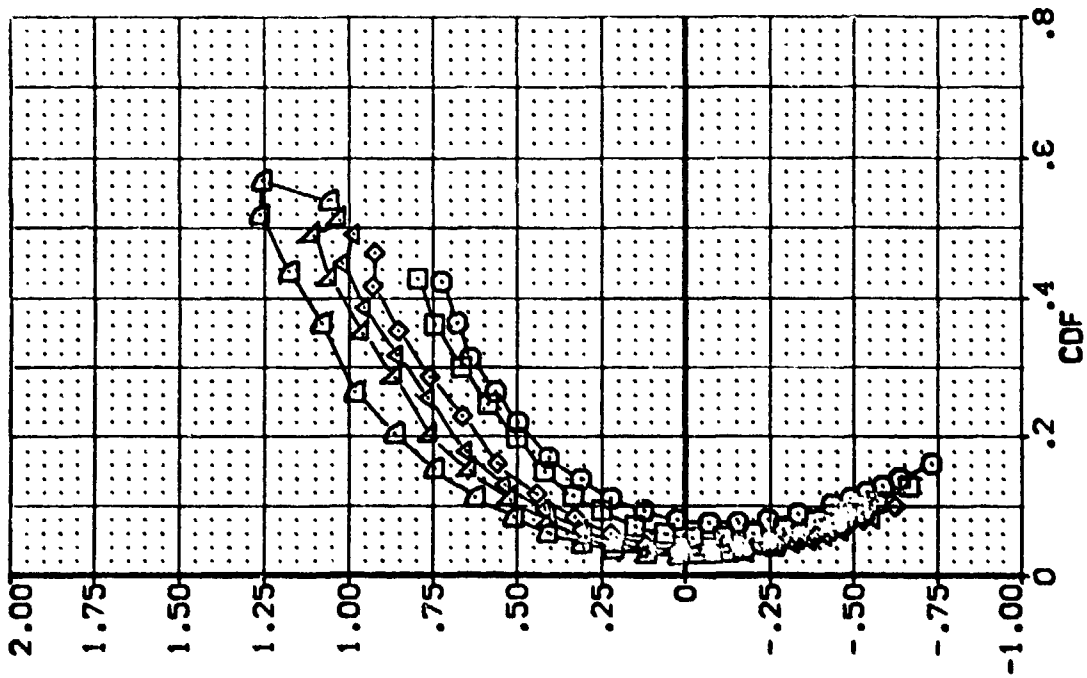
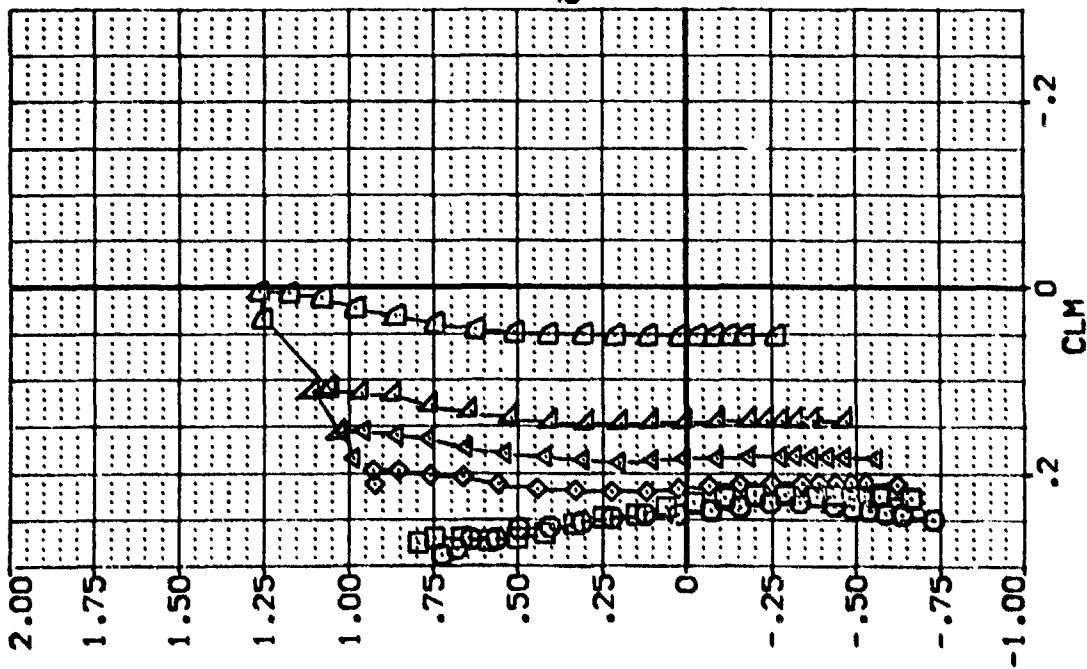


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

(A)MACH = .20

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORWK	BOFLAP	RUDDER	REFERENCE INFORMATION
(802105)	DA528 B26C3	-40.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(802106)	DA528 B26C3	-30.000	23.000	-12.000	.000	LRUF 19.2299 INCHES
(802107)	DA528 B26C3	-20.000	23.000	-12.000	.000	BREF 37.9359 INCHES
(802108)	DA528 B26C3	-15.000	23.000	-12.000	.000	XREF 43.5974 INCHES
(802109)	DA528 B26C3	-10.000	25.000	-12.000	.000	YREF .0000 INCHES
(802117)	DA528 B26C3	-10.000	25.000	-12.000	.000	ZREF 15.1875 INCHES
						SCALE .0405

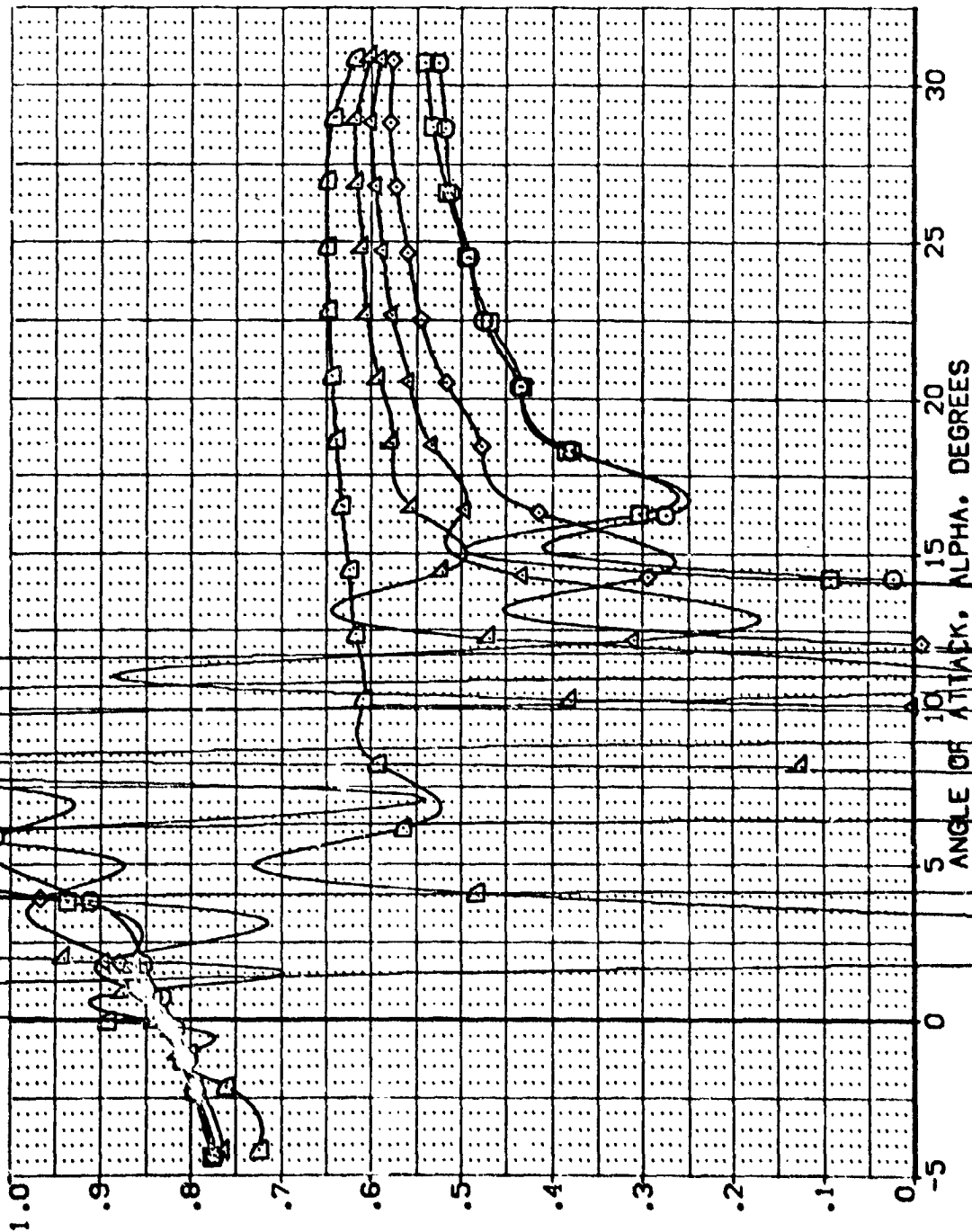


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON - SPDRBK	BD FLAP	RUDDER	REFERENCE INFORMATION
(B02105)	0A628 B26C3 M7F8 V11B228/85X9	-40.000	-12.000	.000	SREF 4.4119 SQ.FT.
(B02106)	0A628 B26C3 M7F8 V11B228/85X9	-30.000	-12.000	.000	LREF 19.2238 INCHES
(B02107)	0A628 B26C3 M7F8 V11B228/85X9	-20.000	-12.000	.000	BREF 37.9359 INCHES
(B02108)	0A628 B26C3 M7F8 V11B228/85X9	-15.000	-12.000	.000	XMRP 43.5574 INCHES
(B02109)	0A628 B26C3 M7F8 V11B228/85X9	-10.000	-12.000	.000	YMRP .0000 INCHES
(B02117)	0A628 B26C3 M7F8 V11B228/85X9	.000	-12.000	.000	ZMRP 15.1875 INCHES
					SCALE .0405

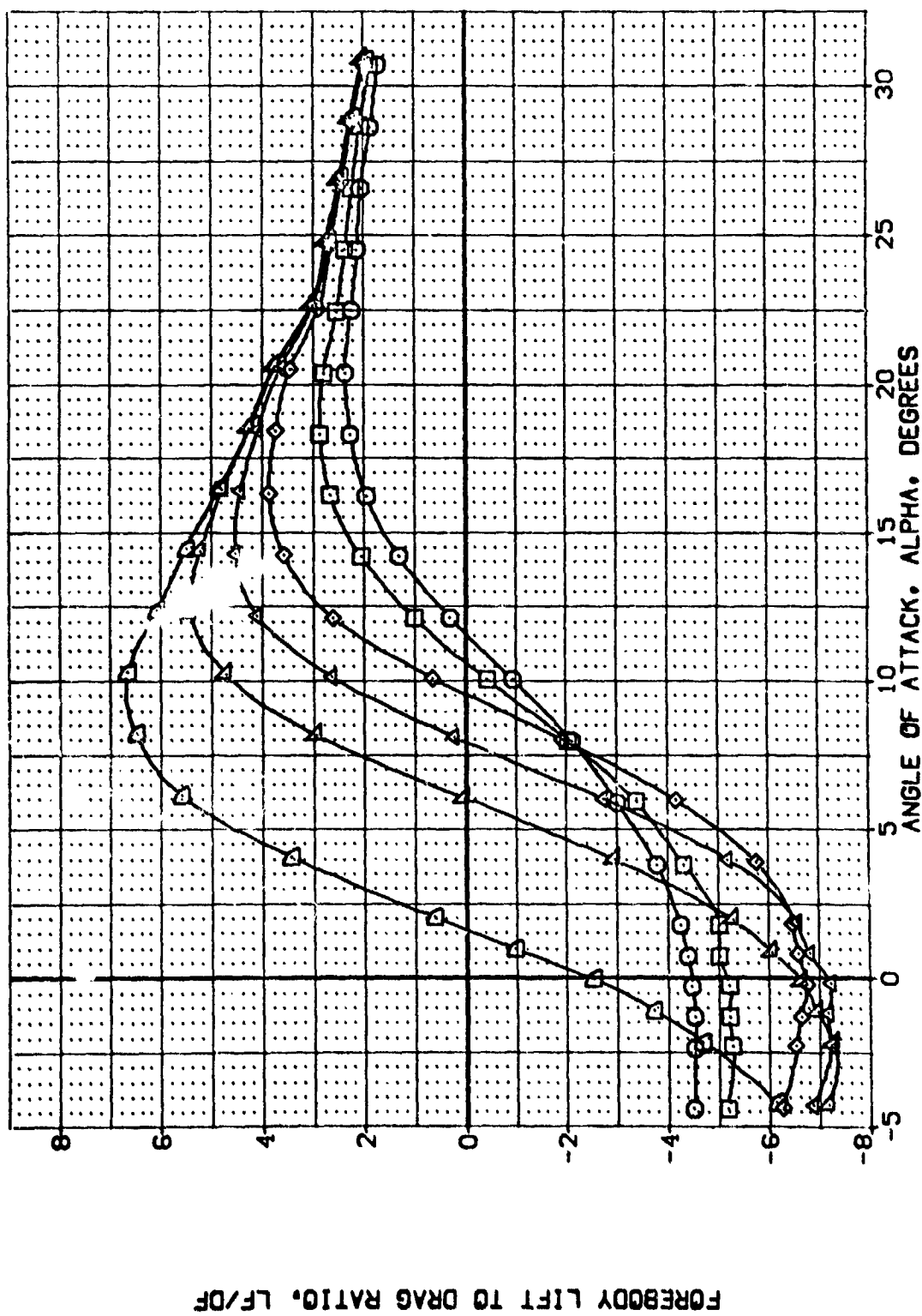


FIG 39 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z105)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
0	.000	.200	BOFLAP	-12.000	20Z105	-40.000	4.4119	SO.FT.
		.000	RUDDER	.000	20Z105	-10.000	19.2298	INCHES
		25.000	BETA	.000	20Z107	-20.000	37.9359	INCHES
					20Z109	-10.000	43.5974	INCHES
					20Z111	5.000	.00004	INCHES
					20Z112	15.000	15.1875	INCHES
							.0405	SCALE

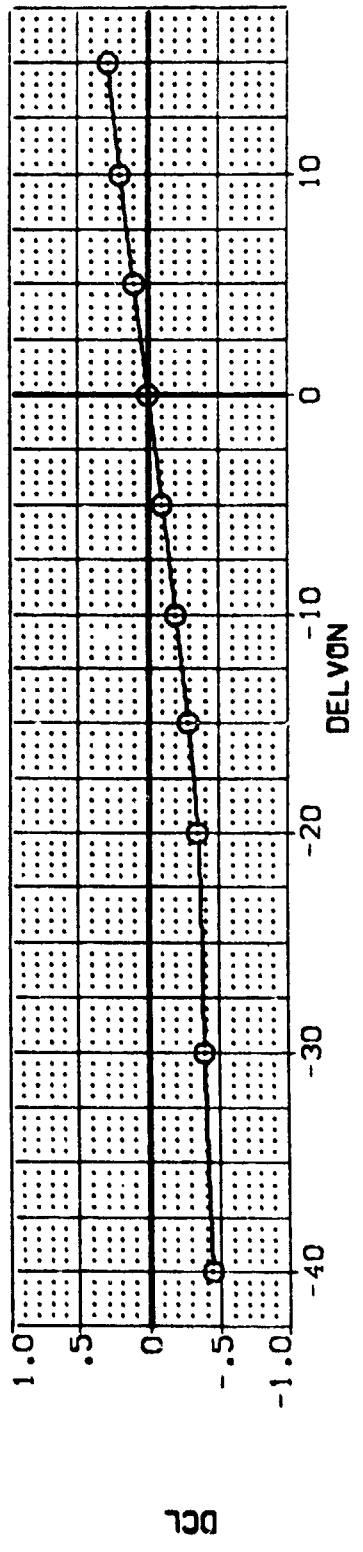
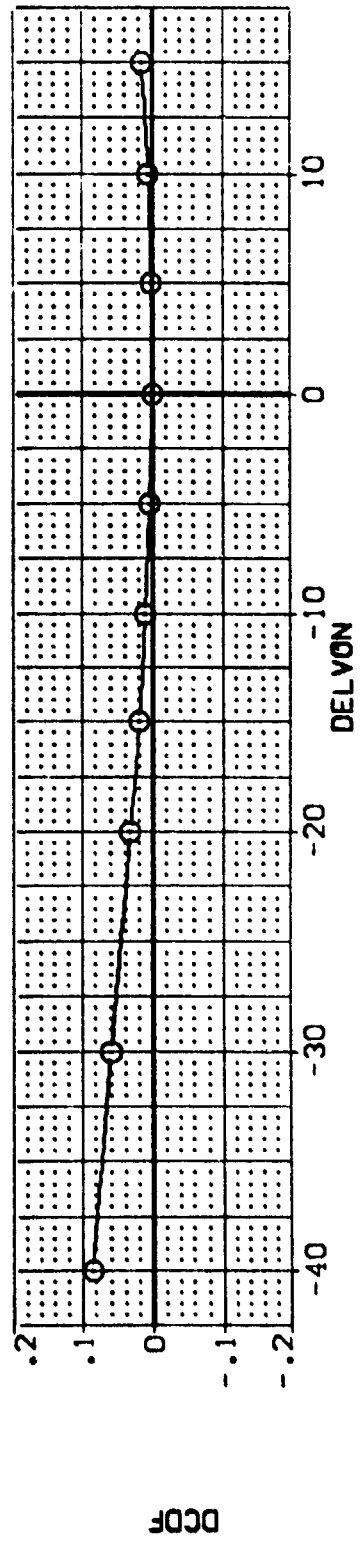
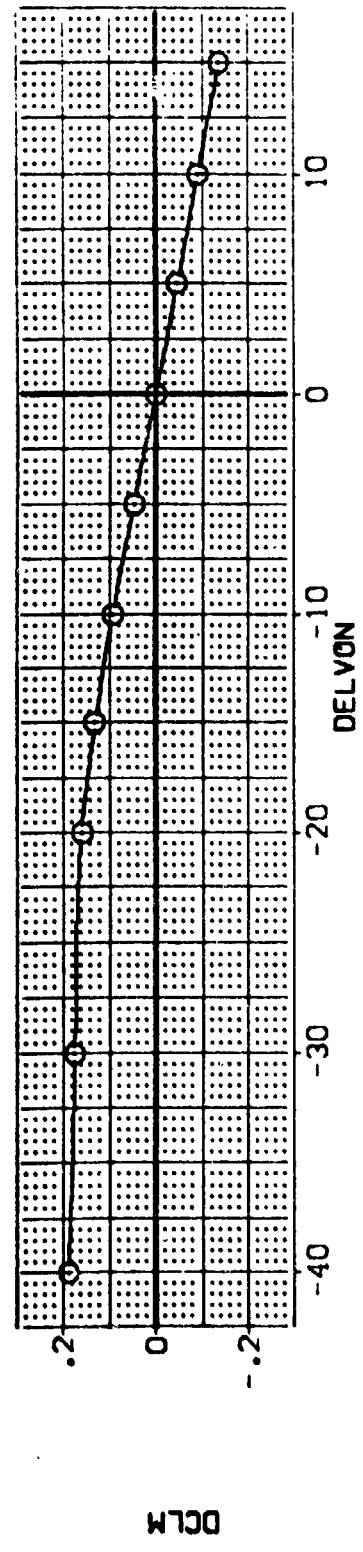


FIG 40 ELEVON EFFECTIVENESS. FREE AIR. GEAR OFF. BASELINE ELEVON GAP

(20Z105)

W116E28V8R5X9

M7F8

B26C9

0A628

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BD FLAP	RUDER	BETA	DEL VON	DATASET	DEL VON	DATASET	SREF	LREF	INC-ES	SCALE
0	5.000	ALLRON	.200	.000	25.000	-12.000	20Z105	-40.000	20Z105	4.4119	19.2799	INC-ES	
		SPDRK	.000	.000		-20.000	20Z107	-20.000	20Z108	37.9359	43.5974	INC-ES	
						-10.000	20Z109	-10.000	20Z111	0.000	0.000	INC-ES	
						10.000	20Z117	10.000	20Z115	15.1875	0.0405	INC-ES	
							20Z114		20Z112	15.000		SCALE	

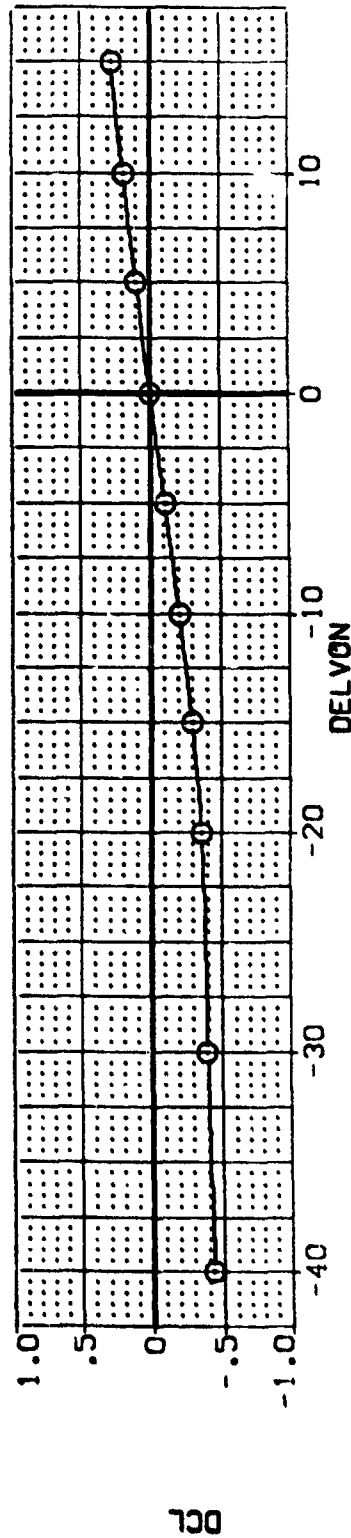
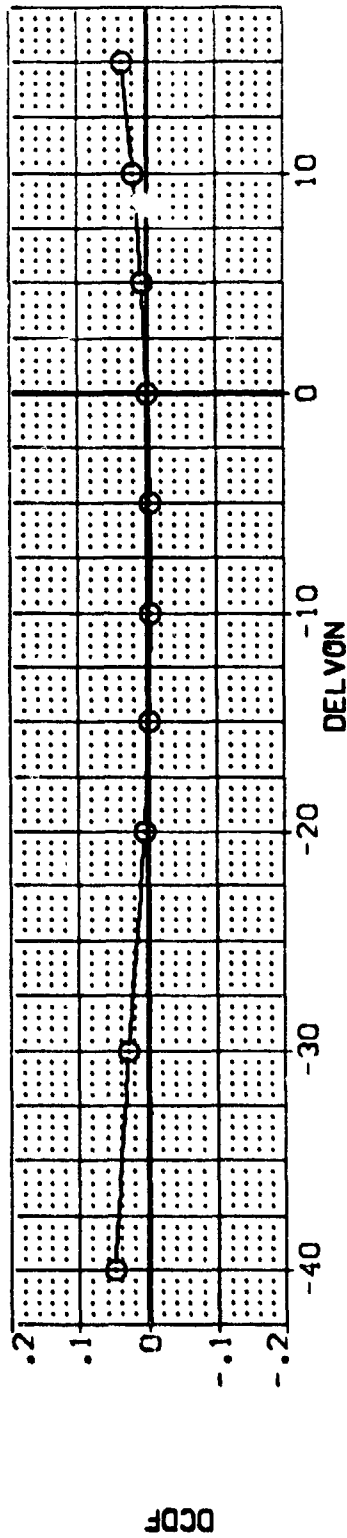
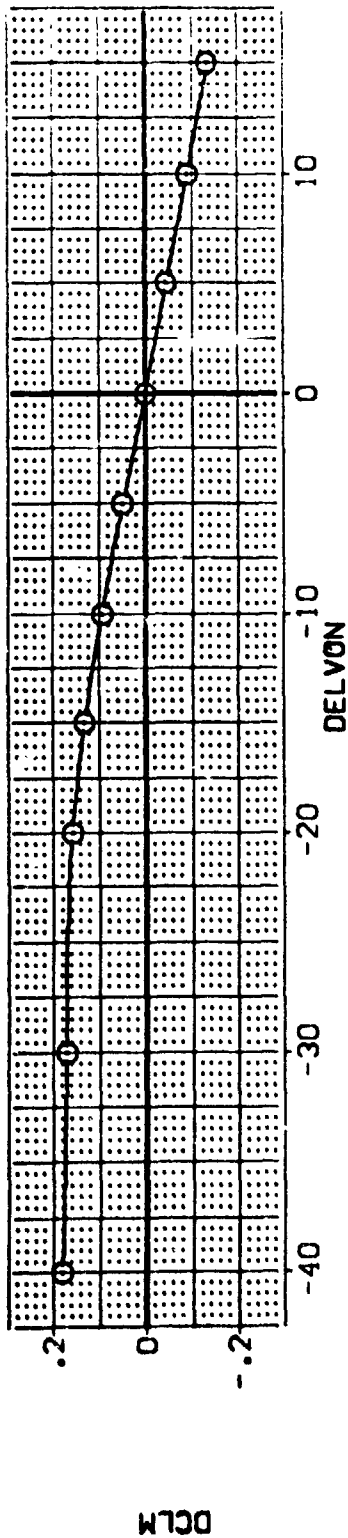


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP



REFERENCE INFORMATION

50. FT.
19.4119
INCHES
37.2299
INCHES
37.2359
INCHES
43.5974
INCHES
.0000
INCHES
15.1875
INCHES
.0405
SCALE

DATASET	DELVON	SREF	LREF	YREF	ZREF	SCALE
202106	-30.000					
202108	-15.000					
202111	-5.000					
202115	5.000					
202112	15.000					

DATA SOURCE
DELVEON
-40,000
-20,000
-10,000
.000
10,000

DATASET  
20Z105  
20Z107  
20Z109  
30Z117  
20Z114

-12.000  
-12.000  
-12.000

VALUES  
BOFLAP  
RJOER  
BETA

PARAMETRIC  
.200  
.000  
25.000

WACH  
MILRON  
SPURK

ALPHA  
10.000

5180

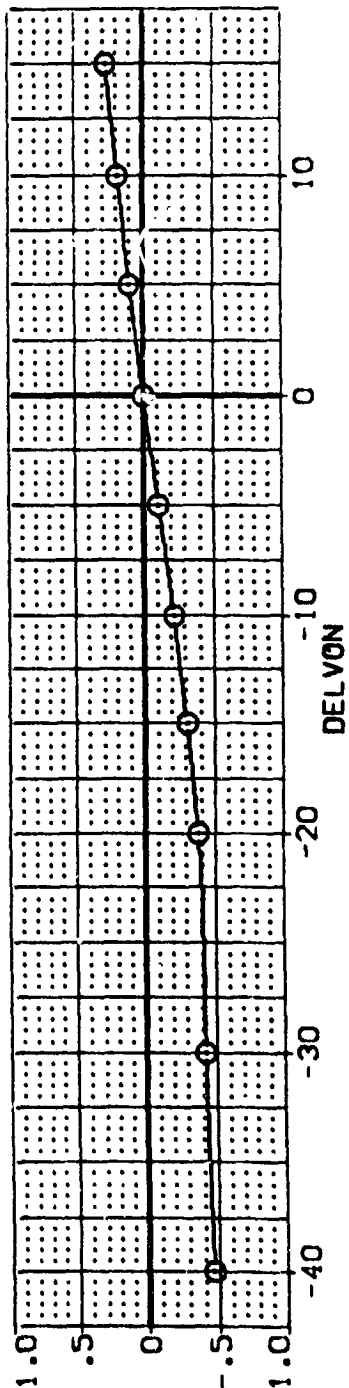
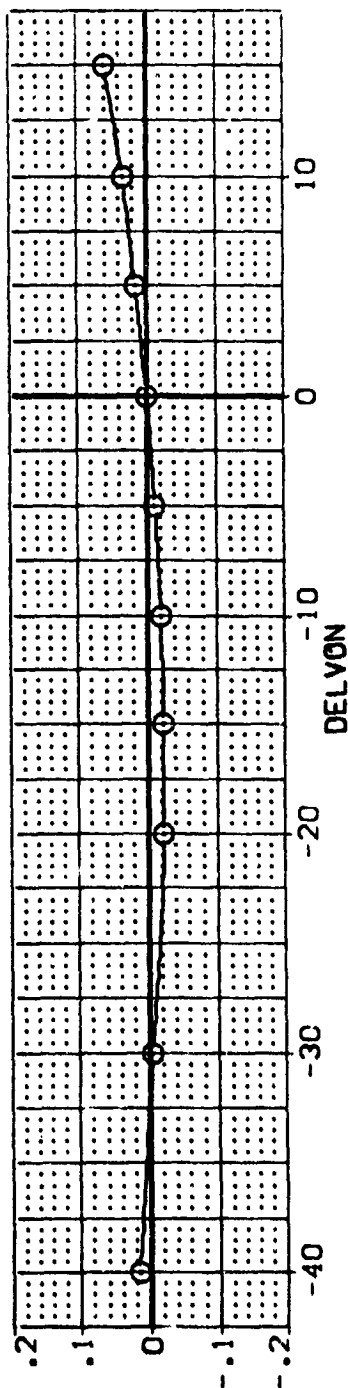
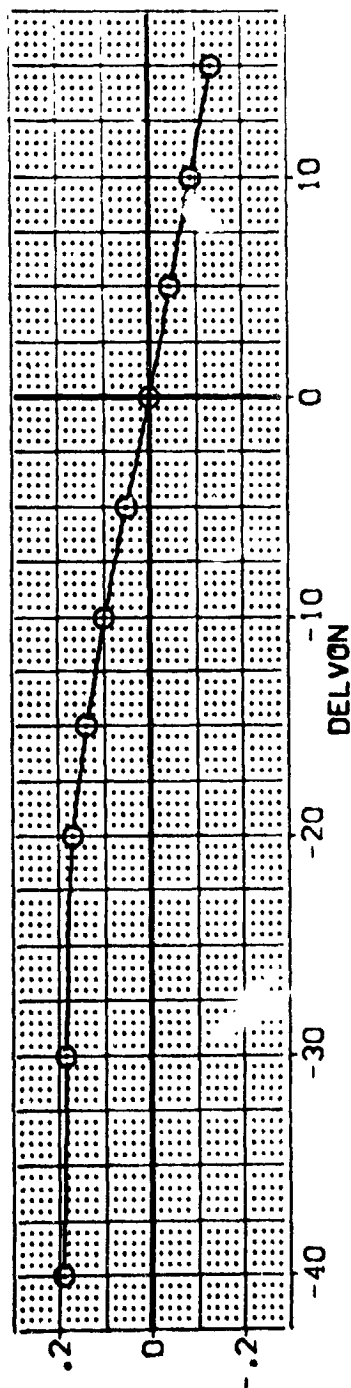


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z105)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
○	15.000							SC.FT.
			.200	-12.000	20Z105	-30.000	4.4119	INCHES
			.000	.000	20Z106	-15.000	19.2799	INCHES
			.000	.000	20Z107	-20.000	37.9359	INCHES
			25.000	.000	20Z108	-5.000	43.5874	INCHES
					20Z109	-10.000	.0000	INCHES
					20Z110	.000	15.1675	INCHES
					20Z111	10.000	.0405	SCALE
					20Z112			

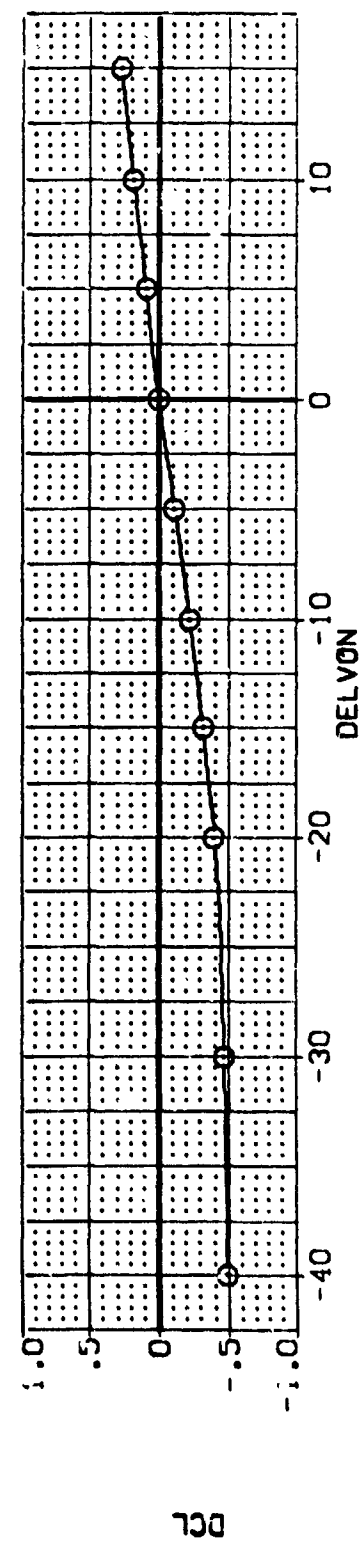
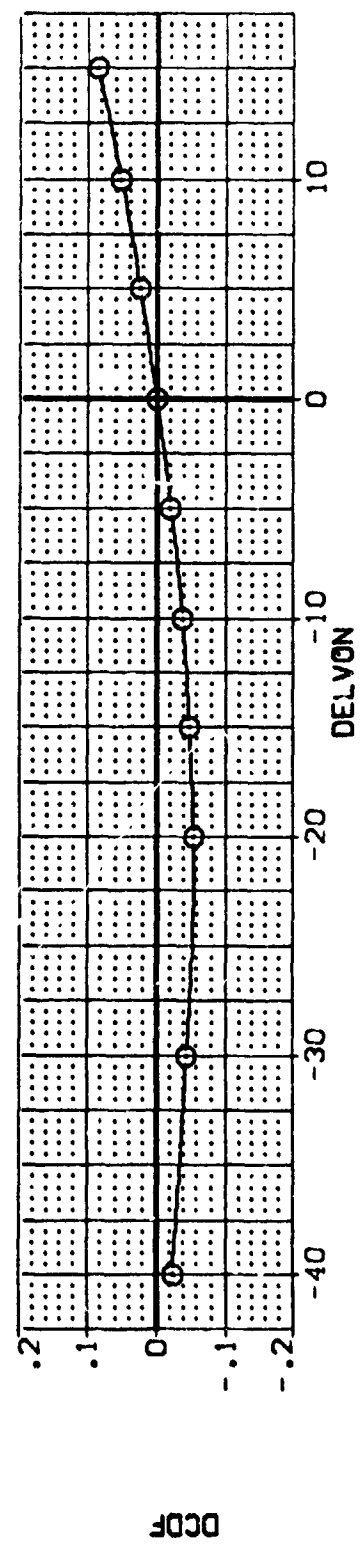
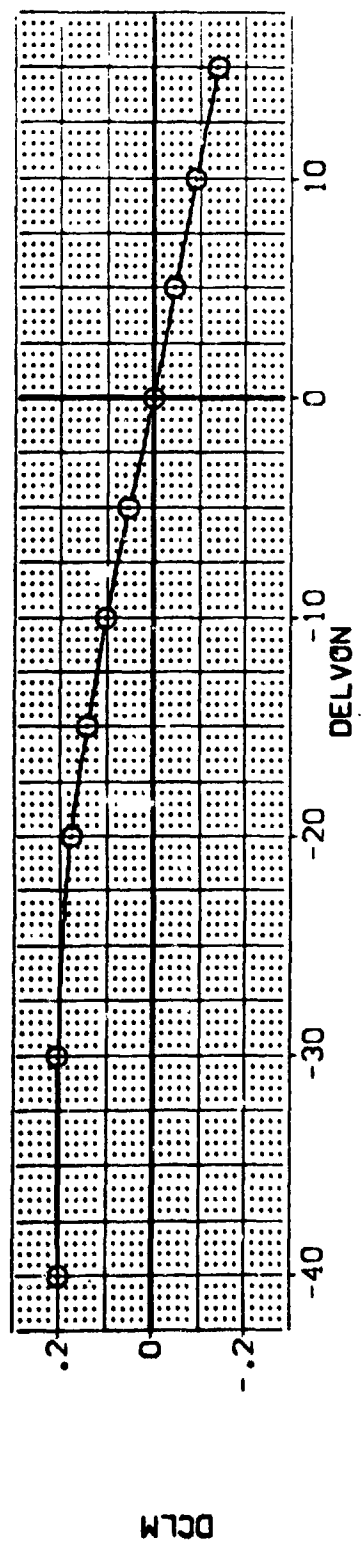


FIG 40 ELEVON EFFECTIVENESS: FREE AIR, GEAR OFF, BASELINE ELEVON GAP



(20Z:05)

0A62B B26C9 M7F8 W116E28V8'5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION				
			BOFLAP	R.OOER	BETA	DELTON	DATASET	DELTON	SREF	50.FT	NCES	NCES
O	20.000	A1LRON	.200	.000	.000	-12.000	20Z105	-30.000	4.4119	12.2798	NCES	NCES
		SPDBK	.000	.000	.000	-20.000	20Z107	-15.000	37.9359	43.5974	NCES	NCES
			25.000			-10.000	20Z109	5.000	.0000	.0000	NCES	NCES
						10.000	20Z117	15.000	15.1875	.0405	SCALE	SCALE

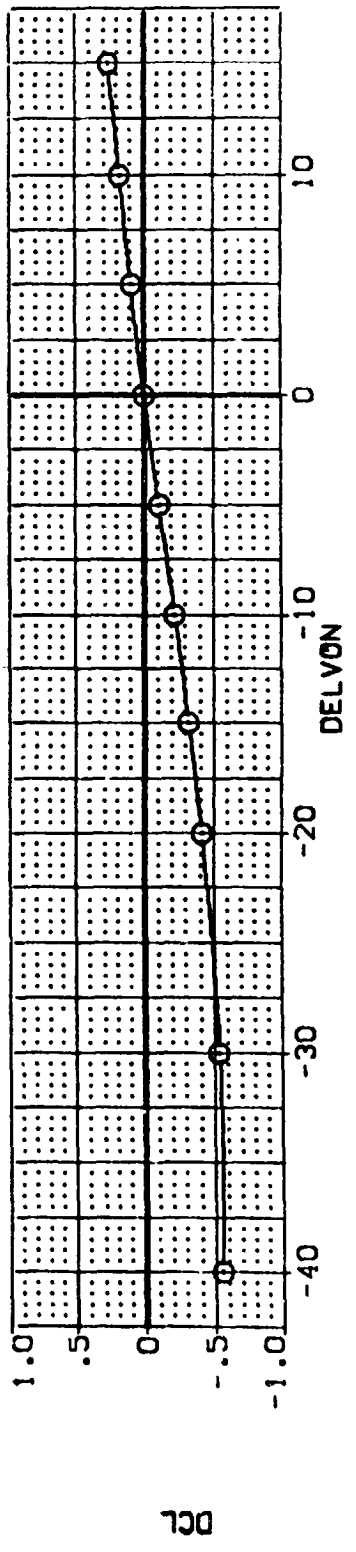
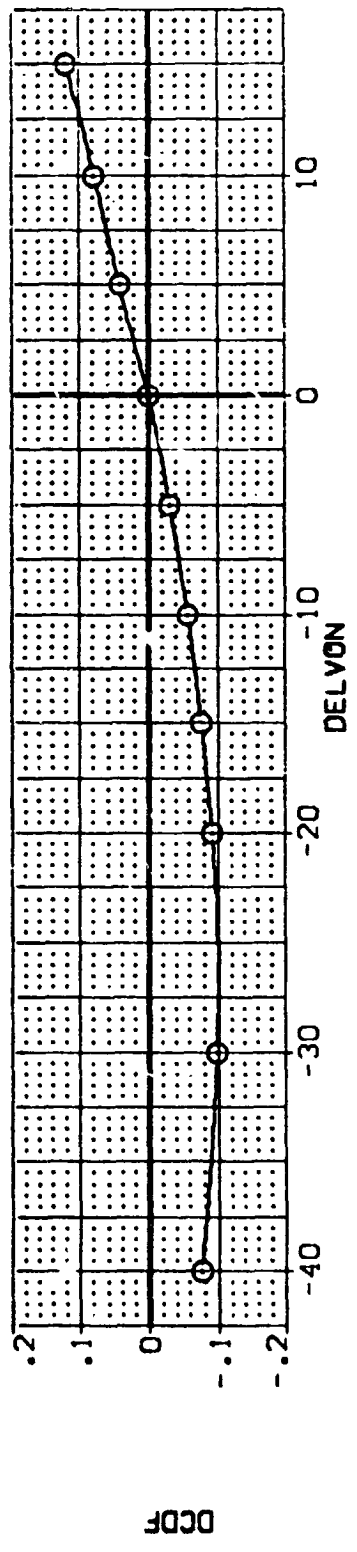
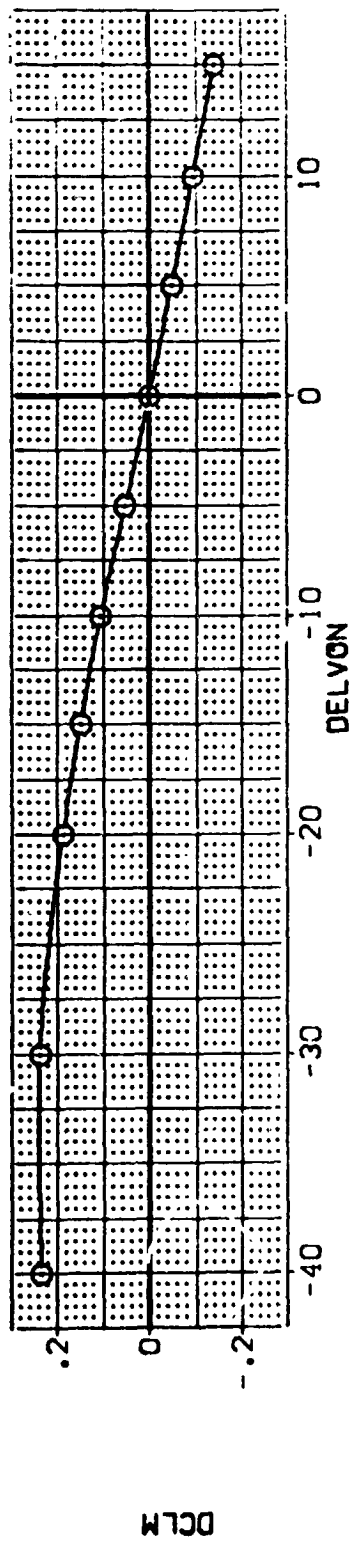


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

(207:05)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION					
○	25.000	AIRLON	.200	BDFAP	-12.000	DATASET	DELVON	DATASET	DELVON	SREF	4.4119	SCF.T	
			.000	RJDER	.000	20Z105	-40.000	20Z106	-30.000	LRFI	19.7289	N.F.S	
		SPOCRK	25.000	BETA	.000	20Z107	-10.000	20Z108	-15.000	BREF	37.9359	N.F.S	
						20Z109		20Z111	-5.000	XMRP	43.3574	N.F.S	
						30Z117	.000	20Z115	5.000	VHRP	.0000	N.F.S	
						20Z114		20Z112	10.000	ZMRP	15.1875	N.F.S	
										SCALE	.0405	SCALE	

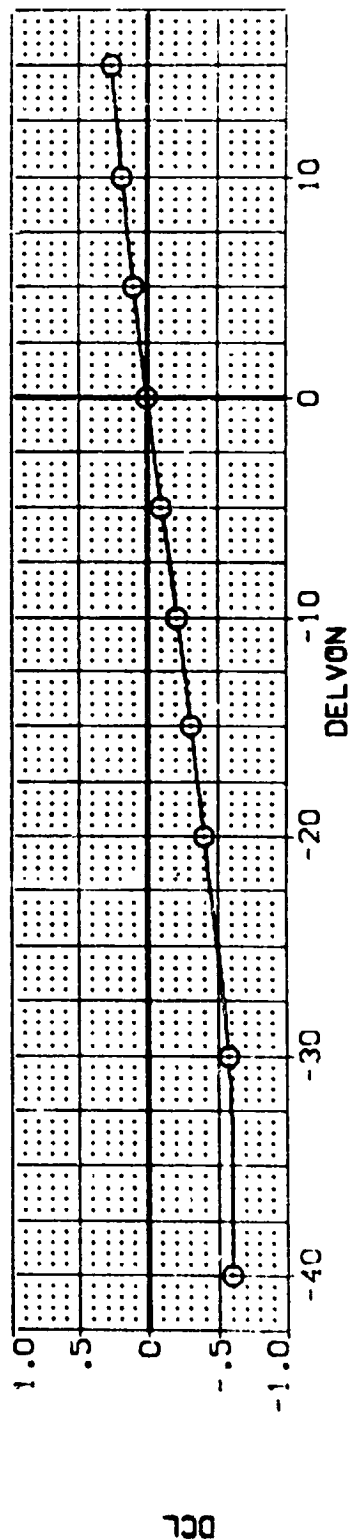
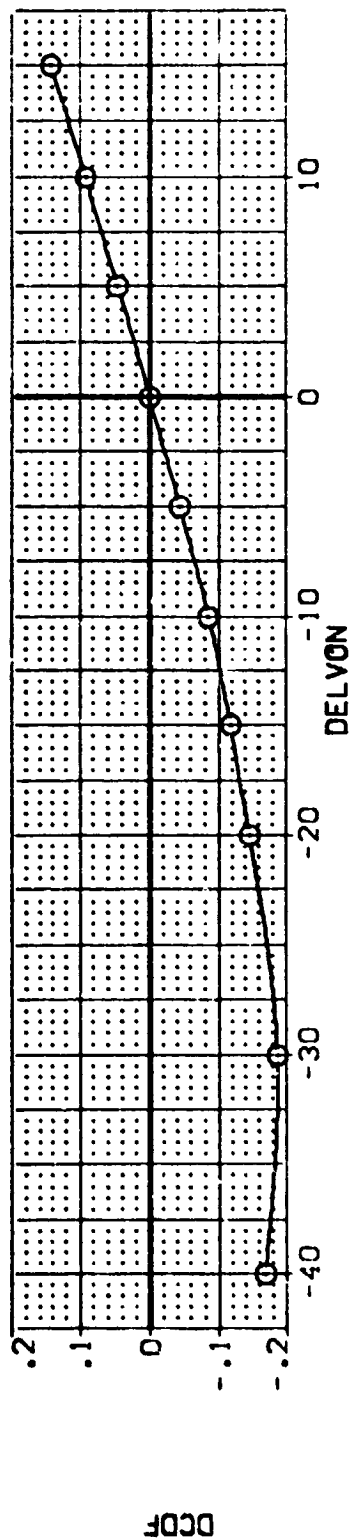
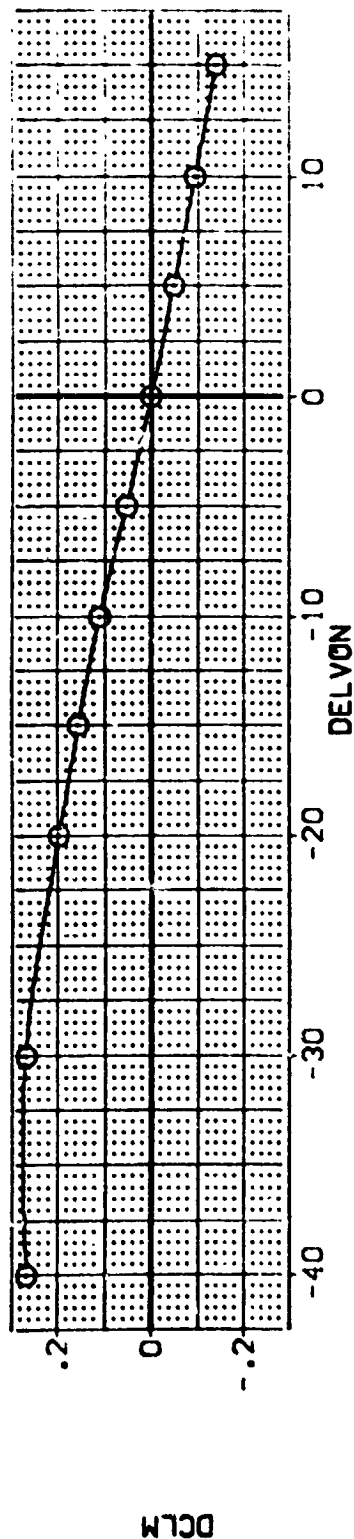


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

CA62B B26C9 M7F8 W116E28V8R5X9 (20Z105)  
 ALPHA 20.003  
 SYMBOL ○  
 PARAMETRIC VALUES  
 MACH .200 BOFLAP .000 RLODER .000 BETA 75.000  
 AIRLON SPOROK 20Z105 20Z107 20Z109 20Z111 20Z113 20Z115 20Z117 20Z119  
 DATA SOURCE DELVON -40.000 -20.000 -10.000 0.000 10.000  
 DATASET 20Z106 20Z108 20Z110 20Z112 20Z114 20Z116 20Z118 20Z120  
 DELVON -30.000 -15.000 -5.000 5.000 15.000  
 REFERENCE INFORMATION  
 LREF 4.4118  
 BREF 19.7299  
 XREF 37.9329  
 YREF 43.5874  
 ZREF 5.0000  
 SCALE 15.1875  
 SCALE 0.0405

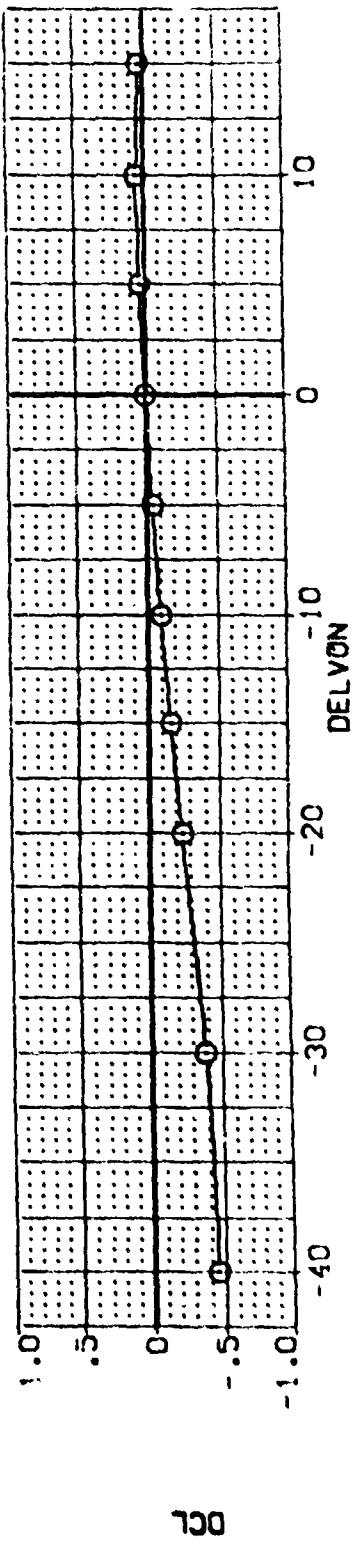
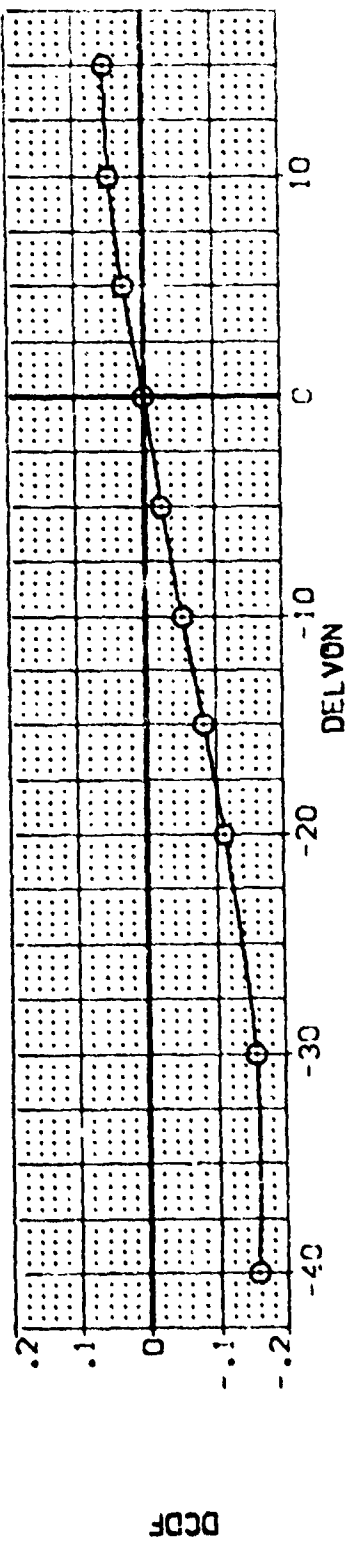
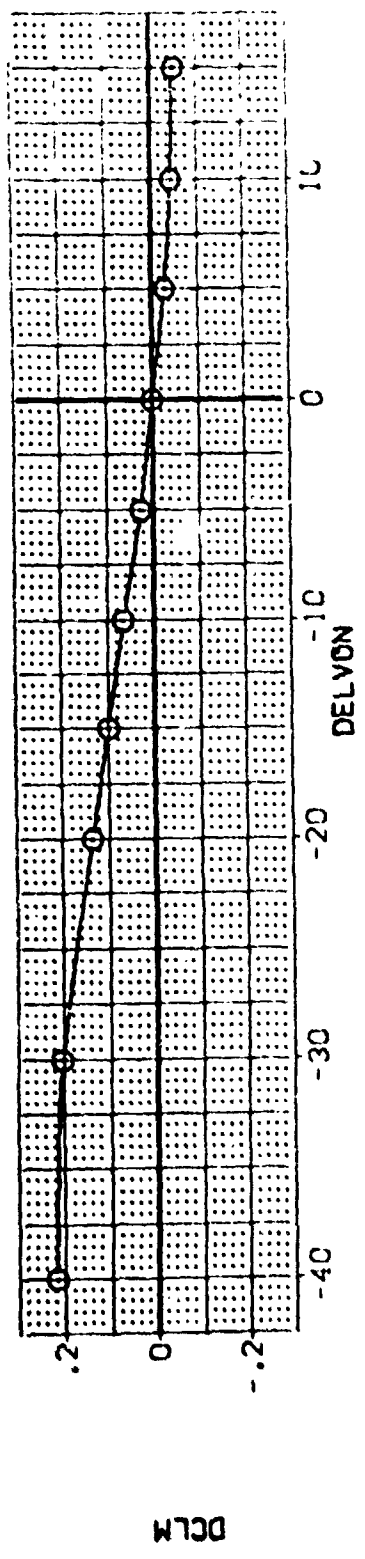
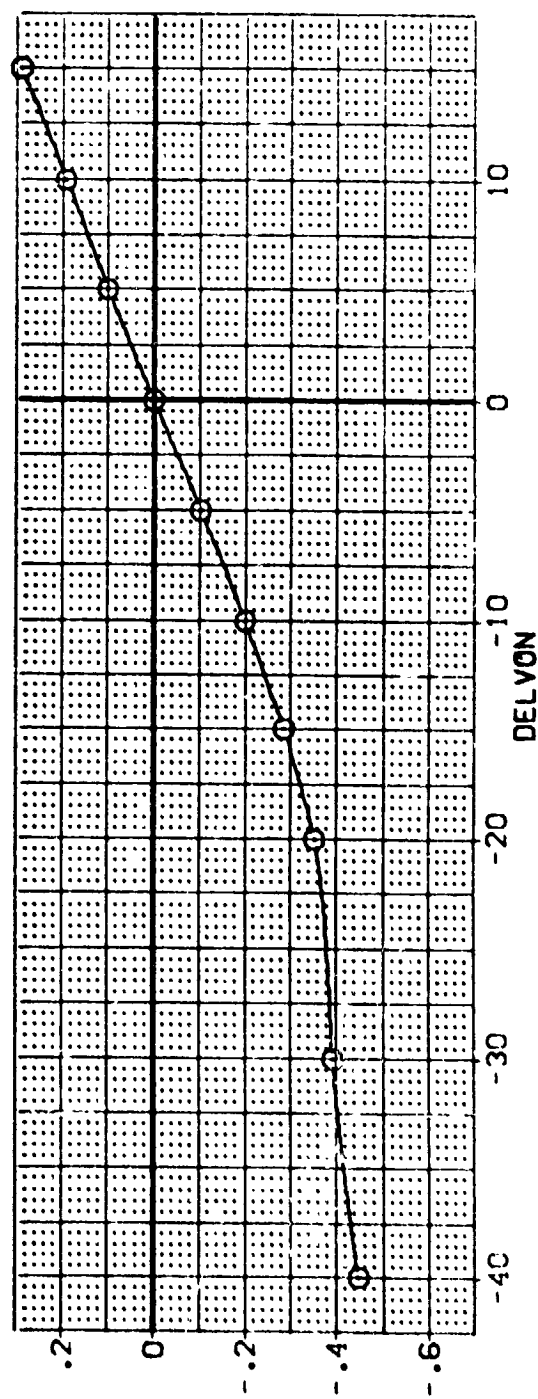
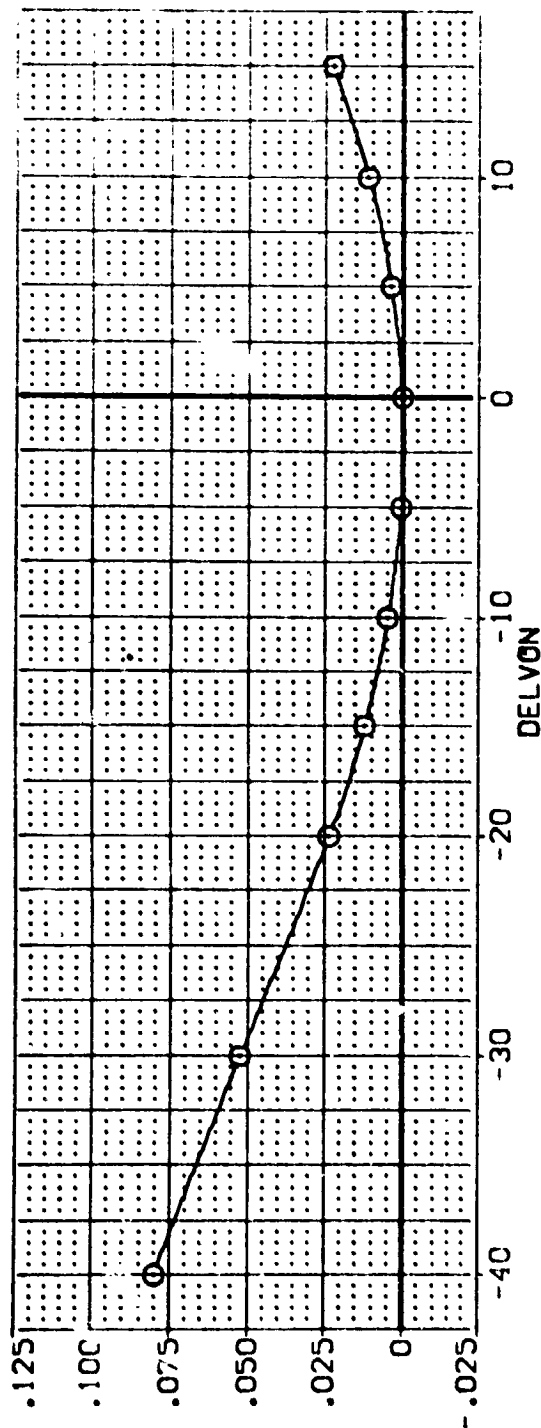


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

9

REFERENCE INFORMATION



PAGE 442

(20Z105)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	SCALE	REFERENCE INFORMATION
○	5.000	AIRON	.200 BOFLAP	DELTON	-40.000	20Z105	-20.000	4.4119	SCALING
		SPOBRK	.000 RLODER		-20.000	20Z106	-15.000	19.2299	INCAS
		BETA	25.000		-10.000	20Z107	-5.000	37.9358	INCAS
					10.000	20Z108	5.000	43.5974	INCAS
						20Z109		.0000	INCAS
						20Z110		15.1875	INCAS
						20Z111		.0405	SCALE
						20Z112			
						20Z113			
						20Z114			

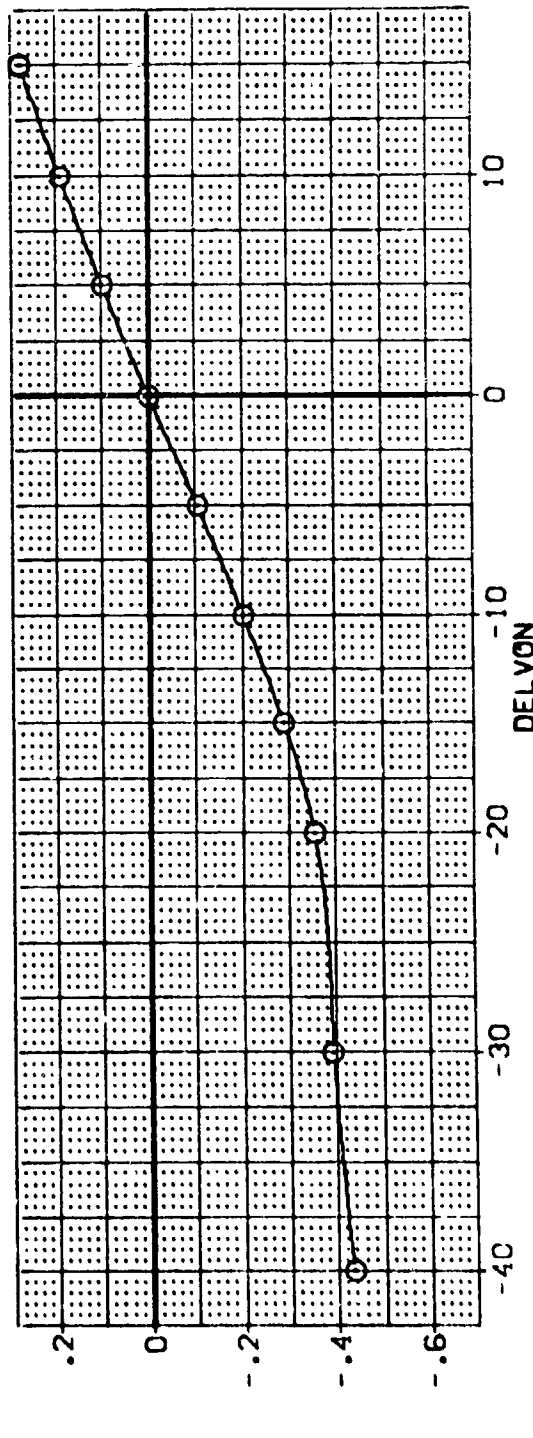
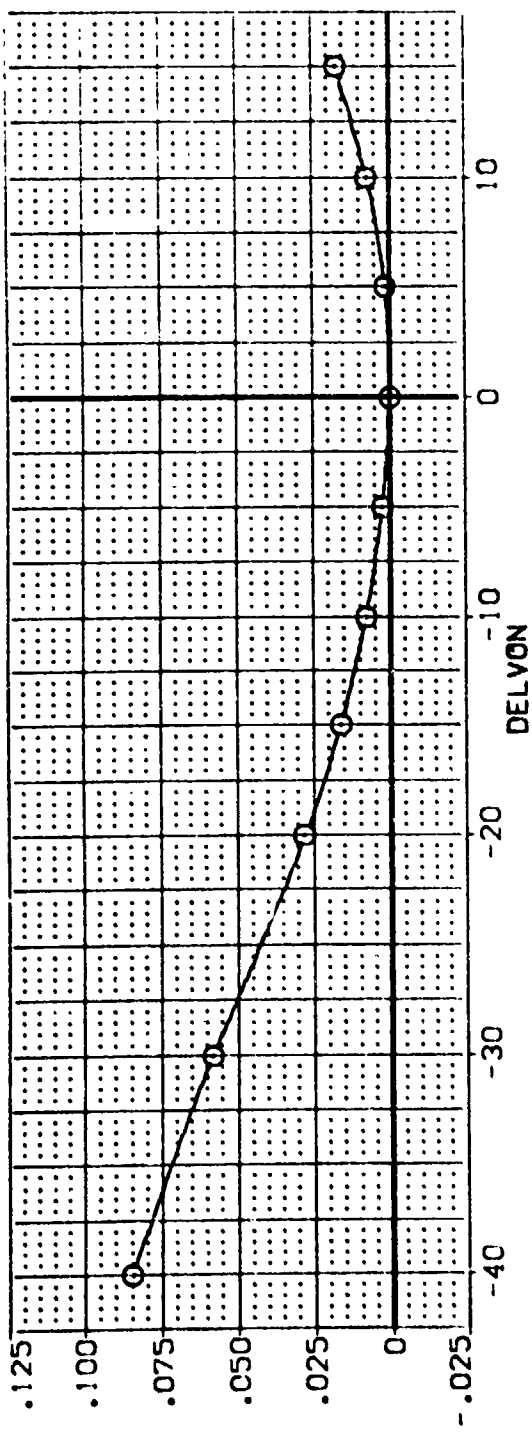


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

○  
synes

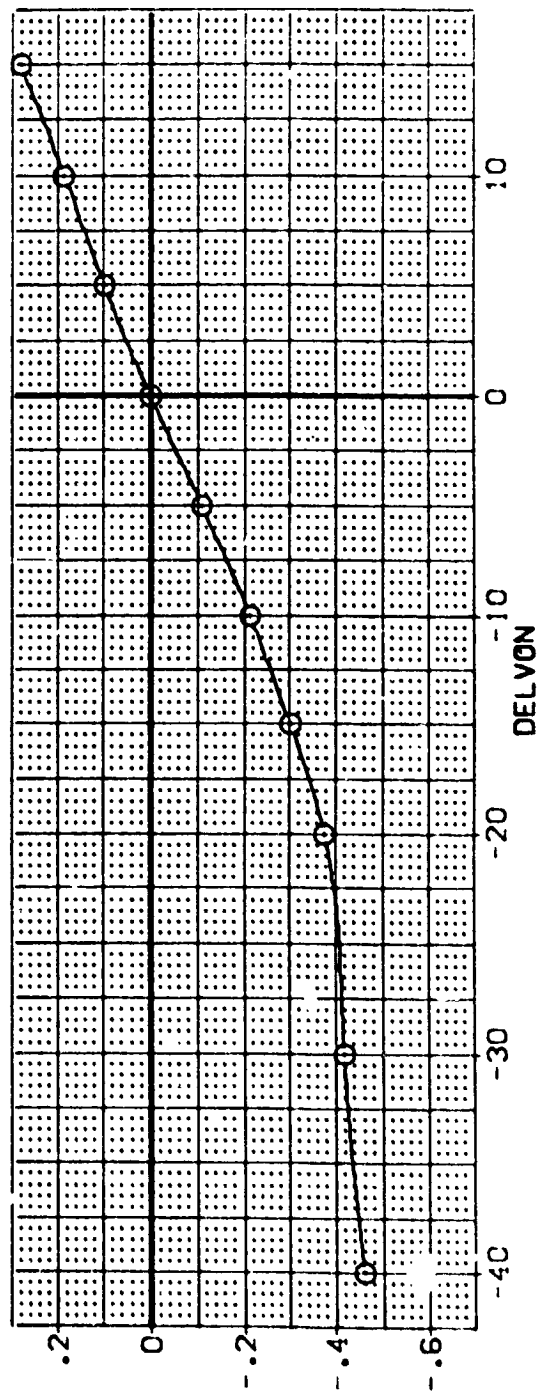


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP





(20Z105)

01628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
		MACH	BOFLAP	R-DOER	DELTON	DATASET	DELTON	SREF	LREF	SCALE
○	15.000	ALLRON	.200	.000	-12.000	20Z105	-30.000	4.4119	19.2799	SC.FT.
		SPDRK	25.000	BETA	.000	20Z107	-15.000	37.9359	43.5874	INCHES
					.000	20Z111	5.000	15.000	15.000	INCHES
					10.000	20Z112	15.000	15.000	15.000	INCHES
					10.000	20Z114	10.000	15.000	15.000	SCALE

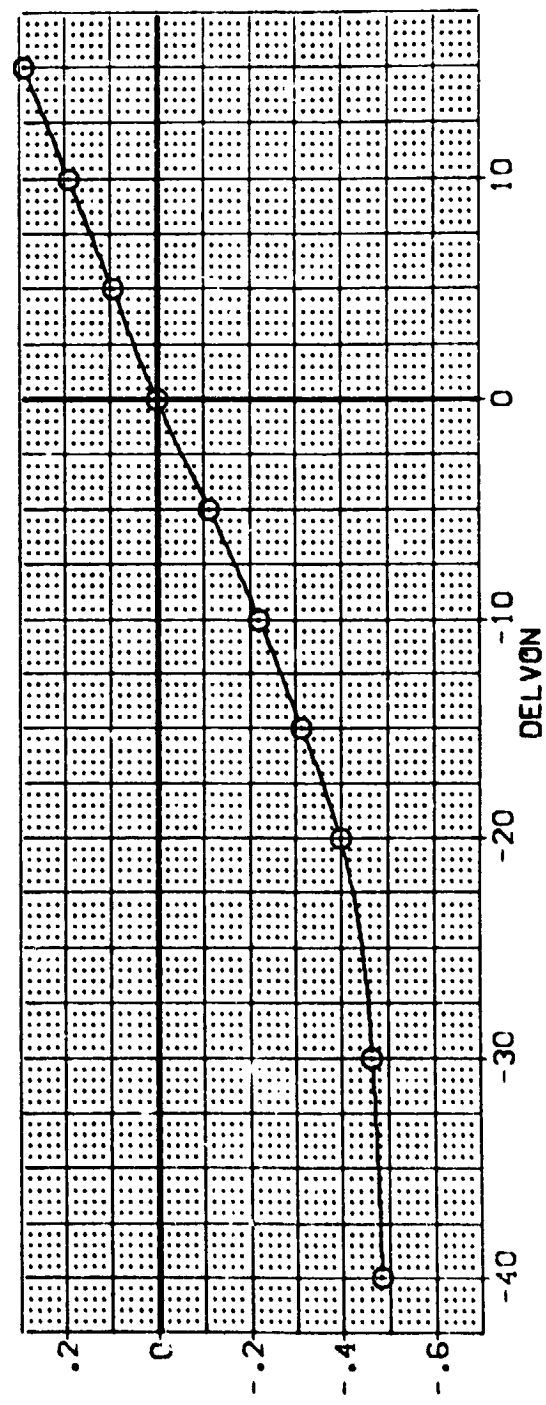
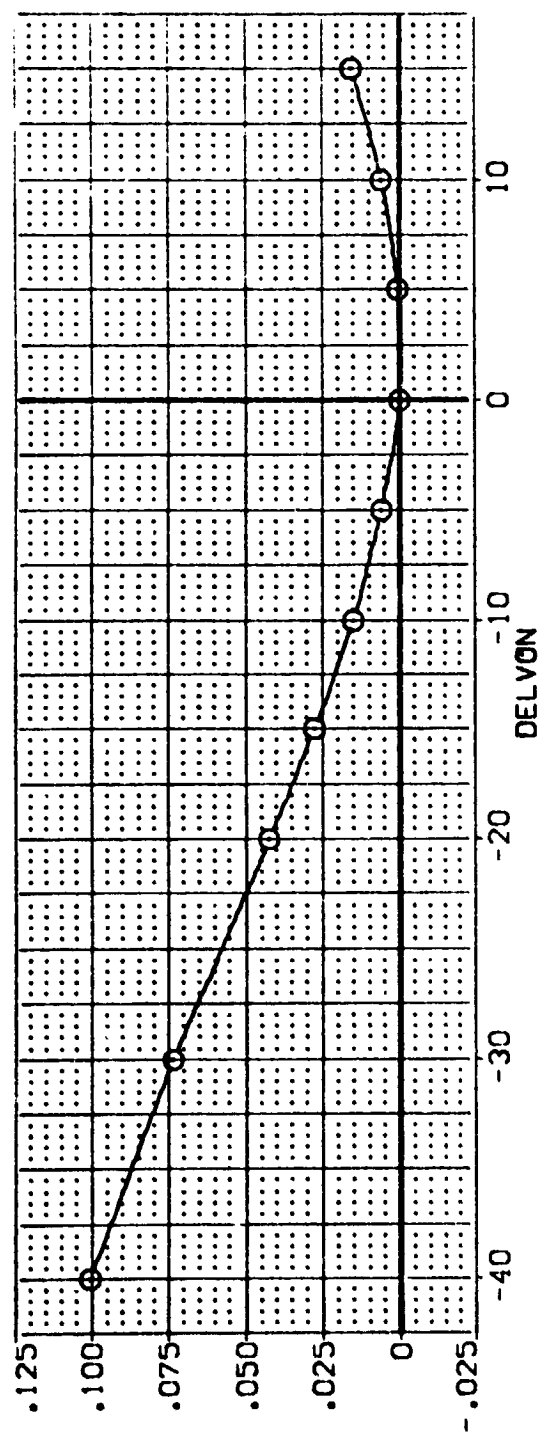


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

0A628 B26C9 M7F8 W116E28V8R5X9 (2DZ105)  
 SYMBOL ALPHA 20.000  
 O  
 PARAMETRIC VALUES  
 MACH .200 BOFLAP .000 RLODER .000 BETA 75.000  
 AIRLON SPOROK  
 DATA SOURCE  
 DELVON -12.000 DATASET 202105  
 -10.000 202106  
 -10.000 202107  
 10.000 202108  
 10.000 202109  
 10.000 202110  
 10.000 202111  
 10.000 202112  
 REFERENCE INFORMATION  
 SREF 4.4119  
 LREF 19.2299  
 BREF 37.9359  
 XREF 43.5974  
 YREF .0000  
 ZREF 15.1875  
 SCALE .0425  
 SC.F.T. 50.000  
 SC.F.T. 50.000  
 SC.F.T. 50.000  
 SC.F.T. 50.000

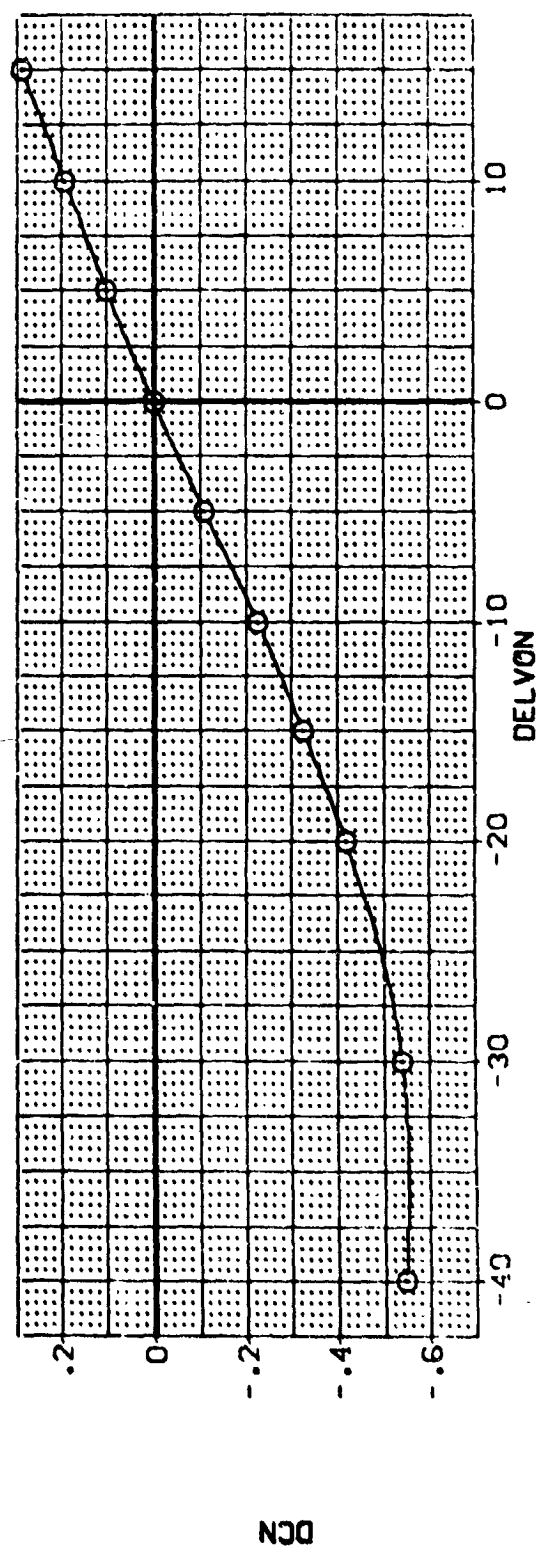
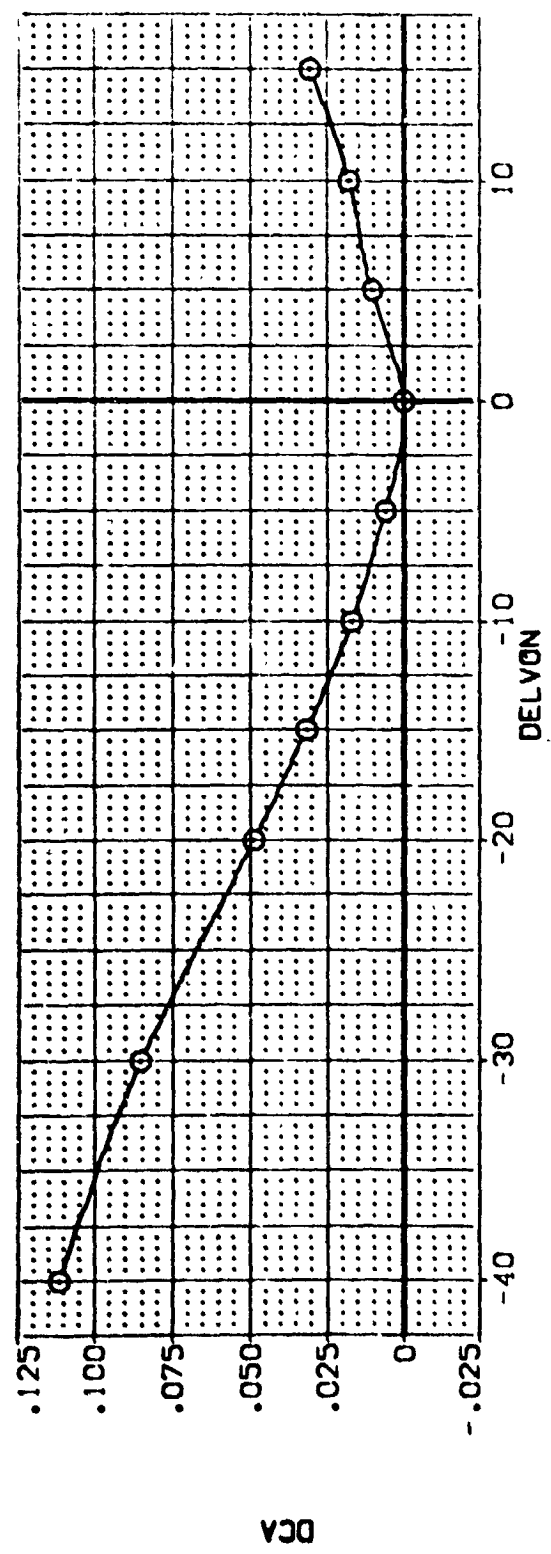


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

(202105)

0A628 B26C9 M7F8 W116E28V8RSX9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DELTON	SREF	REFERENCE INFORMATION
O	25.000	.200	BOFLAP	-12.000	202105	-30.000	4.4119	SC.F.T.
		.000	RUDDER	.000	202106	-15.000	19.7299	INCHES
		25.000	BETA	.000	202107	-5.000	37.9359	INCHES
					202108	5.000	43.5874	INCHES
					202109	10.000	.0000	INCHES
					202110	15.000	15.1875	INCHES
					202111	20.000	.0405	SCALE
					202112	25.000		

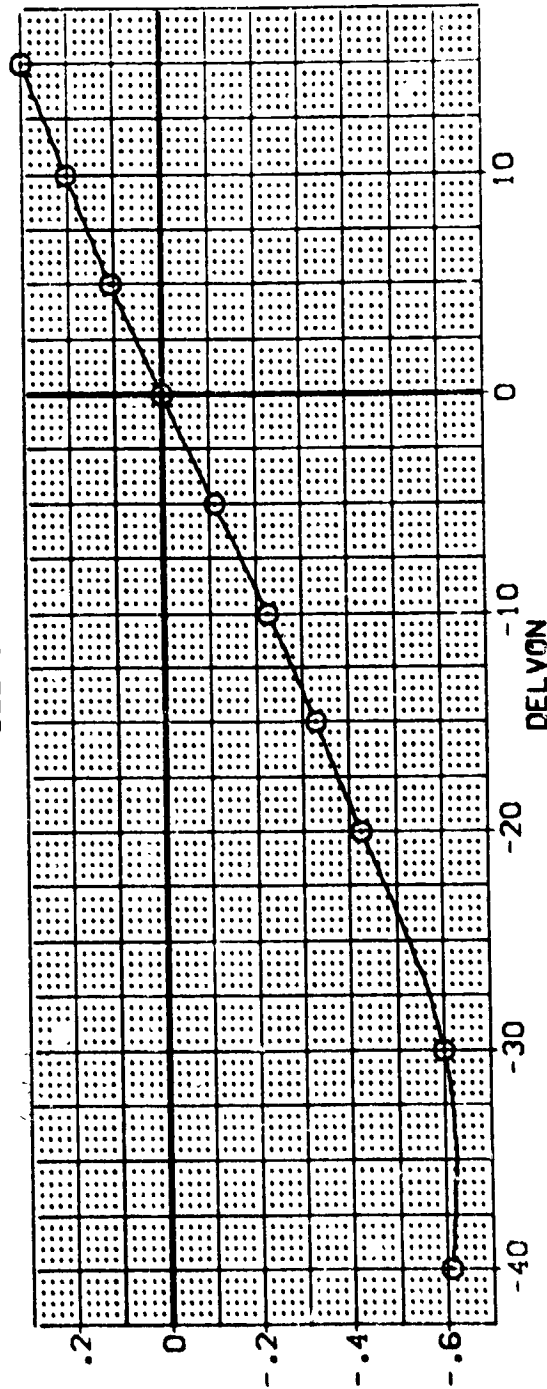
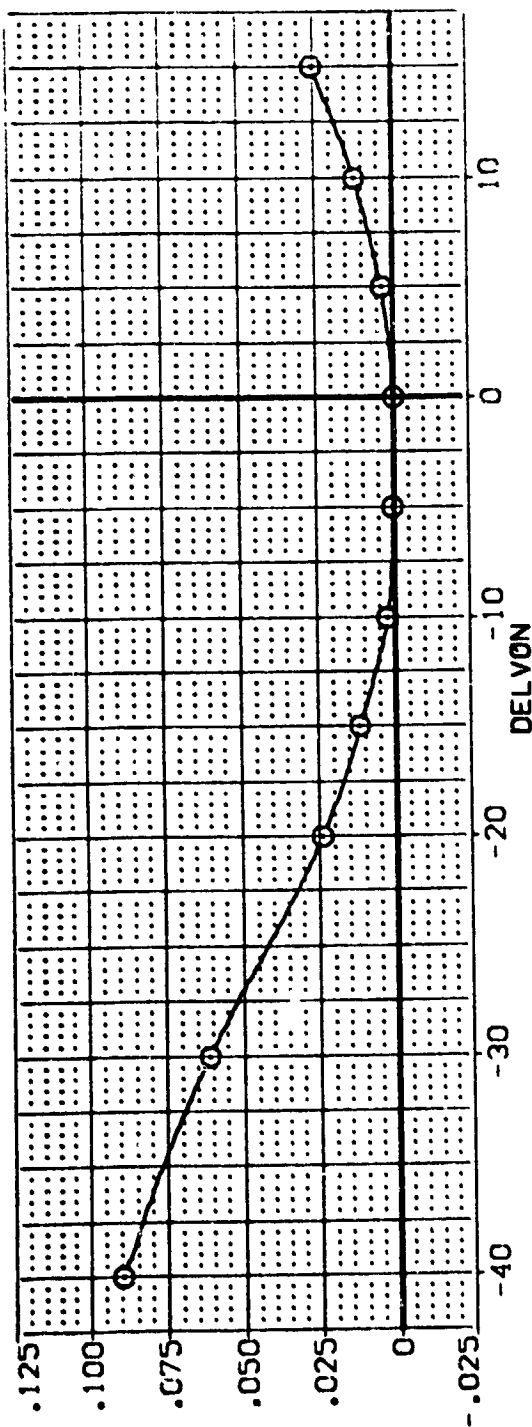


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z105)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE	REFERENCE INFORMATION		
			BDLAP	R-ODER	BETA		DELTON	SREF	SCALE
0	30.000		.200	.000	25.000	-12.000	20Z105	4.4119	SCAL
						.000	20Z106	19.2799	NCES
						.000	20Z107	37.9359	NCES
						.000	20Z108	43.5974	NCES
						.000	20Z109	.0000	NCES
						.000	20Z110	15.1875	NCES
						.000	20Z111	.0405	SCALE
						.000	20Z112		

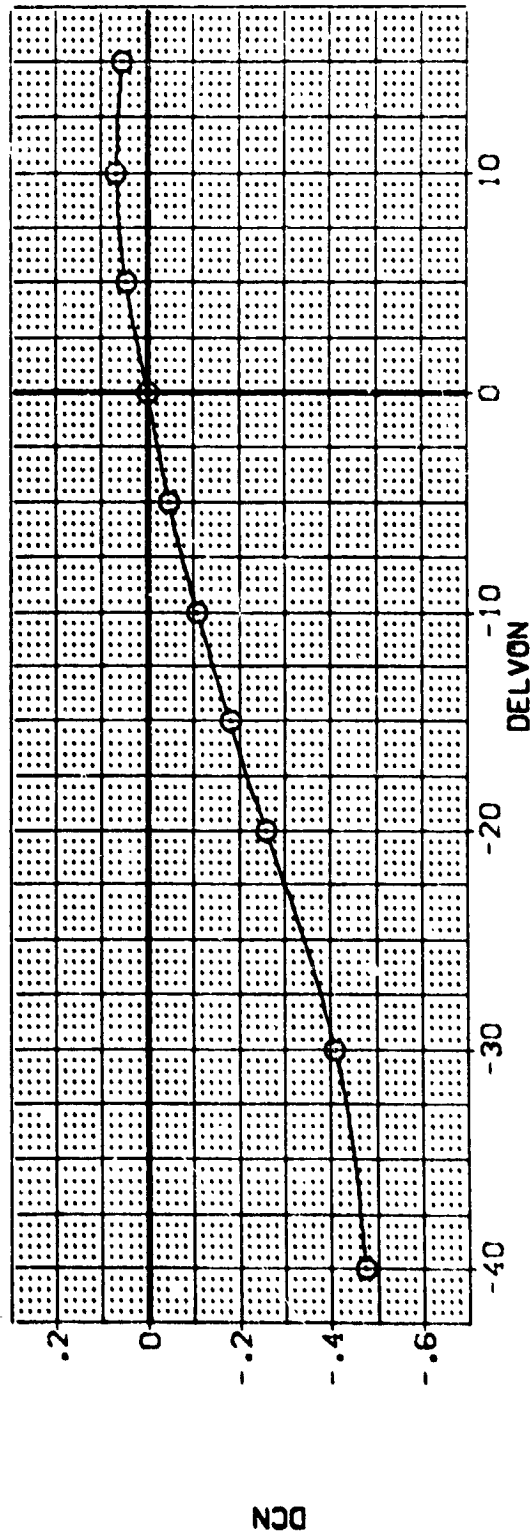
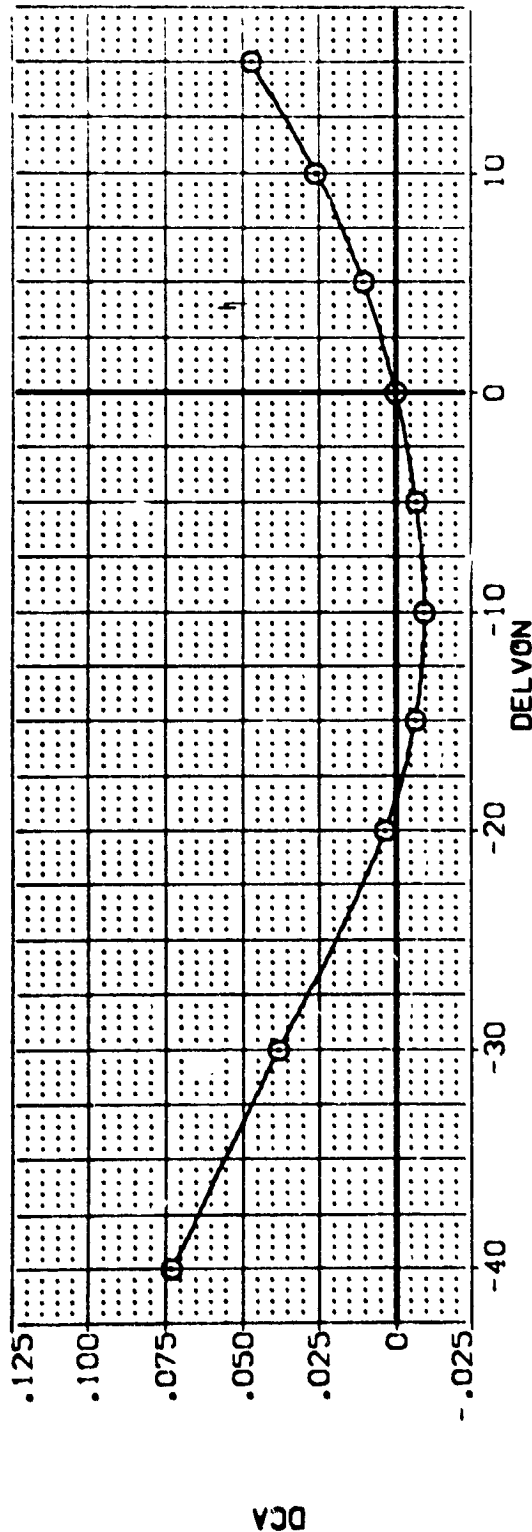


FIG 40 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, BASELINE ELEVON GAP

DATA SET SYMBOL			CONFIGURATION DESCRIPTION			ELEVON			SPORON			BOFLAP			RUDDER			REFERENCE INFORMATION		
{80Z110}	Q	04628	B26C3	M7F8	V116E26V8F5X3	-10.000	25.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	SREF	4.4119	50.17
{80Z124}	X	04628	B26C3	M7F8	V116E26V8F5X3	0.000	25.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	LREF	19.2289	100.00
{80Z116}	X	04628	B26C3	M7F8	V116E26V8F5X3	5.000	25.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BREF	37.9359	100.00
{80Z113}	X	04628	B26C3	M7F8	V116E26V8F5X3	15.000	25.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	XREF	43.5974	100.00
																		YREF	0.000	100.00
																		ZREF	15.1875	100.00
																		SCALE	0.0405	SCALE

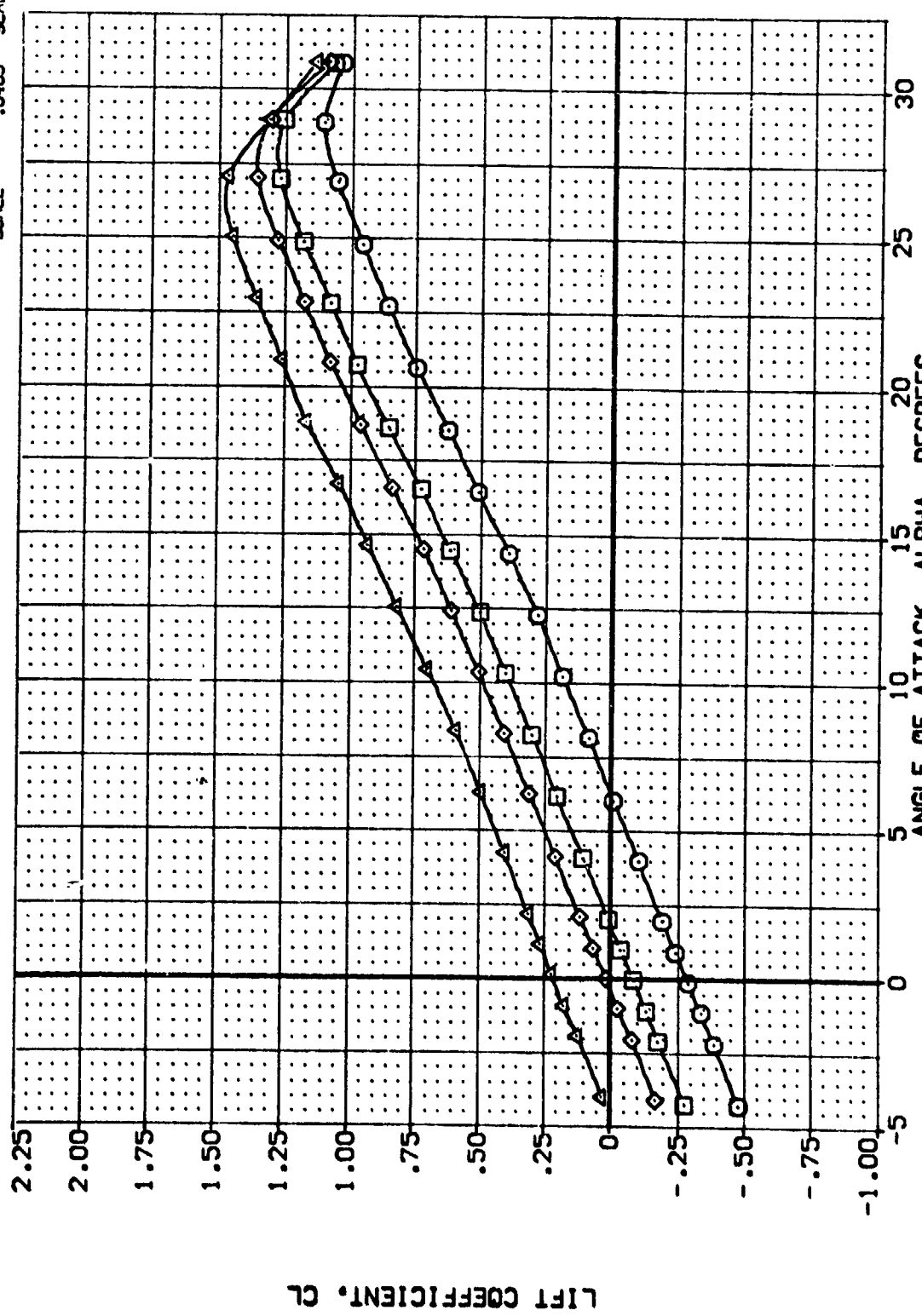
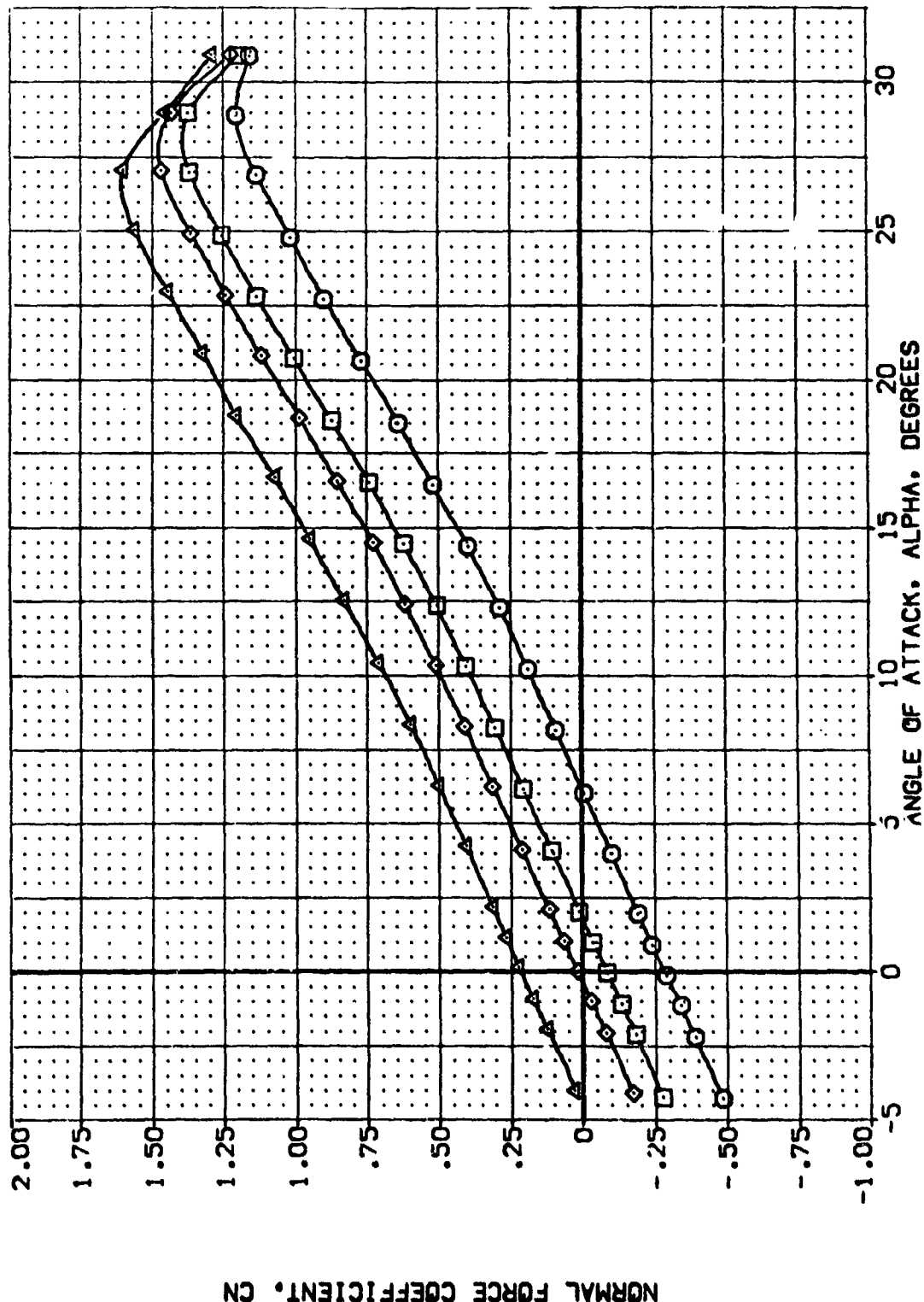


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BD/LAP	RUDDER	REFERENCE INFORMATION
(802110)	04628 B06C9 M7F8 V116E26/8P5X9	-10.000	25.000	-12.000	.000	SREF 4.4119 SO.FT
(802124)	04628 B06C9 M7F8 V116E26/8P5X9	.000	25.000	-12.000	.000	LREF 19.2259 IN-ES
(802116)	04628 B06C9 M7F8 V116E26/8P5X9	5.000	25.000	-12.000	.000	BREF 37.9359 IN-ES
(802113)	04628 B06C9 M7F8 V116E26/8P5X9	15.000	25.000	-12.000	.000	YMRP 43.5874 IN-ES
						ZMRP .0000 IN-ES
						SCALE 15.1875 IN-ES
						SCALE .0405



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[80Z110]	04528 826C3 M7F8 V116Z6V8F539
[80Z111]	04528 826C3 M7F8 V116Z6V8F539
[80Z112]	04528 826C3 M7F8 V116Z6V8F539
[80Z113]	04528 826C3 M7F8 V116Z6V8F539

REFERENCE INFORMATION

REF	50 FT
04528	4.4119 INCHES
826C3	19.2289 INCHES
M7F8	37.5359 INCHES
V116Z6V8F539	43.5974 INCHES
04528	15.0000 INCHES
826C3	15.1875 INCHES
M7F8	15.0405 INCHES
V116Z6V8F539	15.0405 INCHES

ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

ELEVON	SPD BRK	BD FLAP	RUDER
-10.000	25.000	-12.000	.000
-5.000	25.000	-12.000	.000
0.000	25.000	-12.000	.000
5.000	25.000	-12.000	.000
10.000	25.000	-12.000	.000

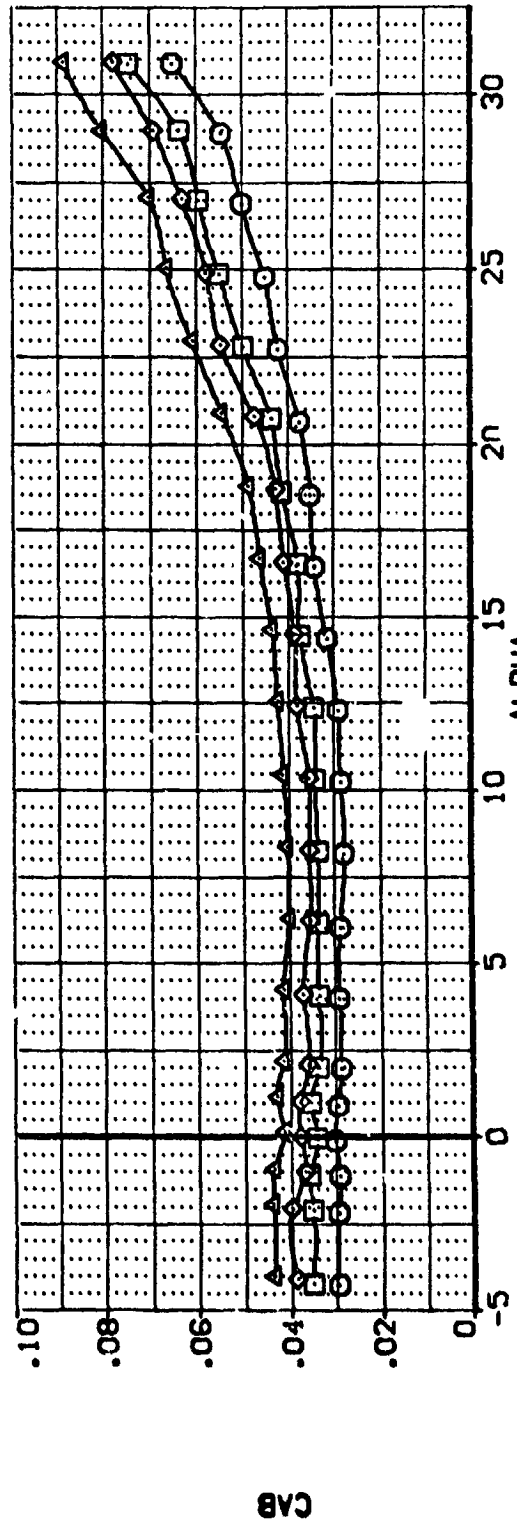
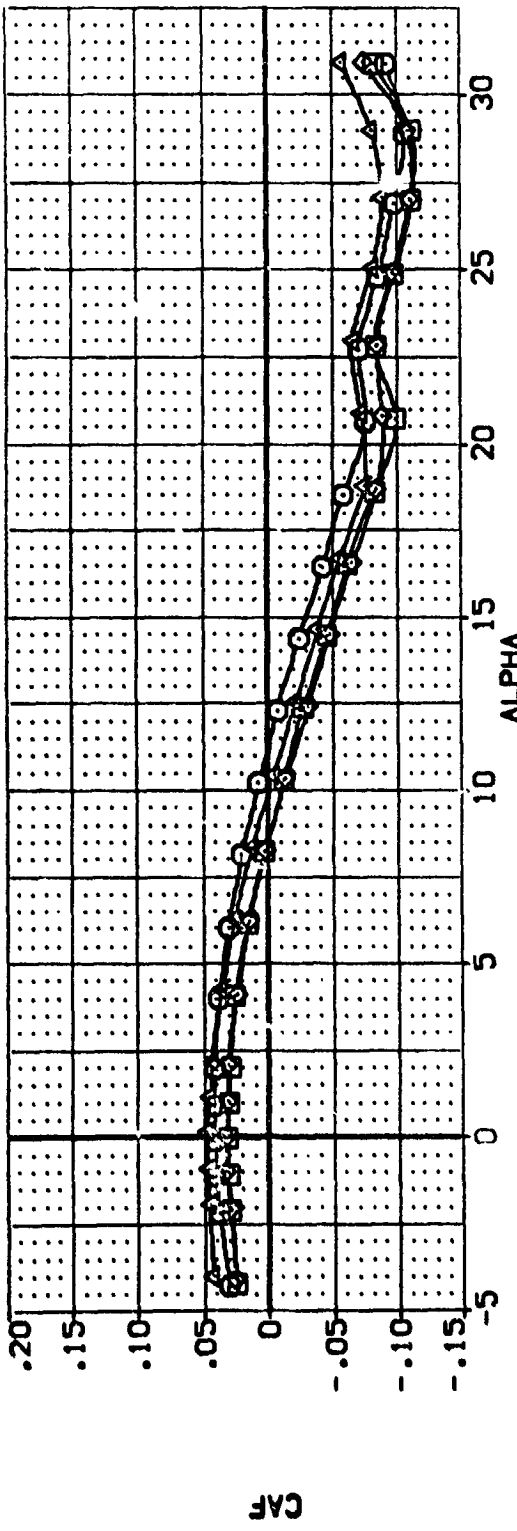


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON  
CA/MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRWK	BDFLAP	FLUDER	REFERENCE INFORMATION
[B02110]	04528 B26C3 M7F8 V11626V85X9	-10.000	25.000	-12.000	.000	SREF 4.419 50.FT.
[B02124]	04528 B26C3 M7F8 V11626V85X9	.000	25.000	-12.000	.000	LREF 19.2259 INCHES
[B02116]	04528 B26C3 M7F8 V11626V85X9	5.000	25.000	-12.000	.000	BREF 37.9359 INCHES
[B02113]	04528 B26C3 M7F8 V11626V85X9	15.000	25.000	-12.000	.000	XREF 43.5974 INCHES
						ZREF .0000 INCHES
						SCALE 15.1875 INCHES
						SCALE .0405

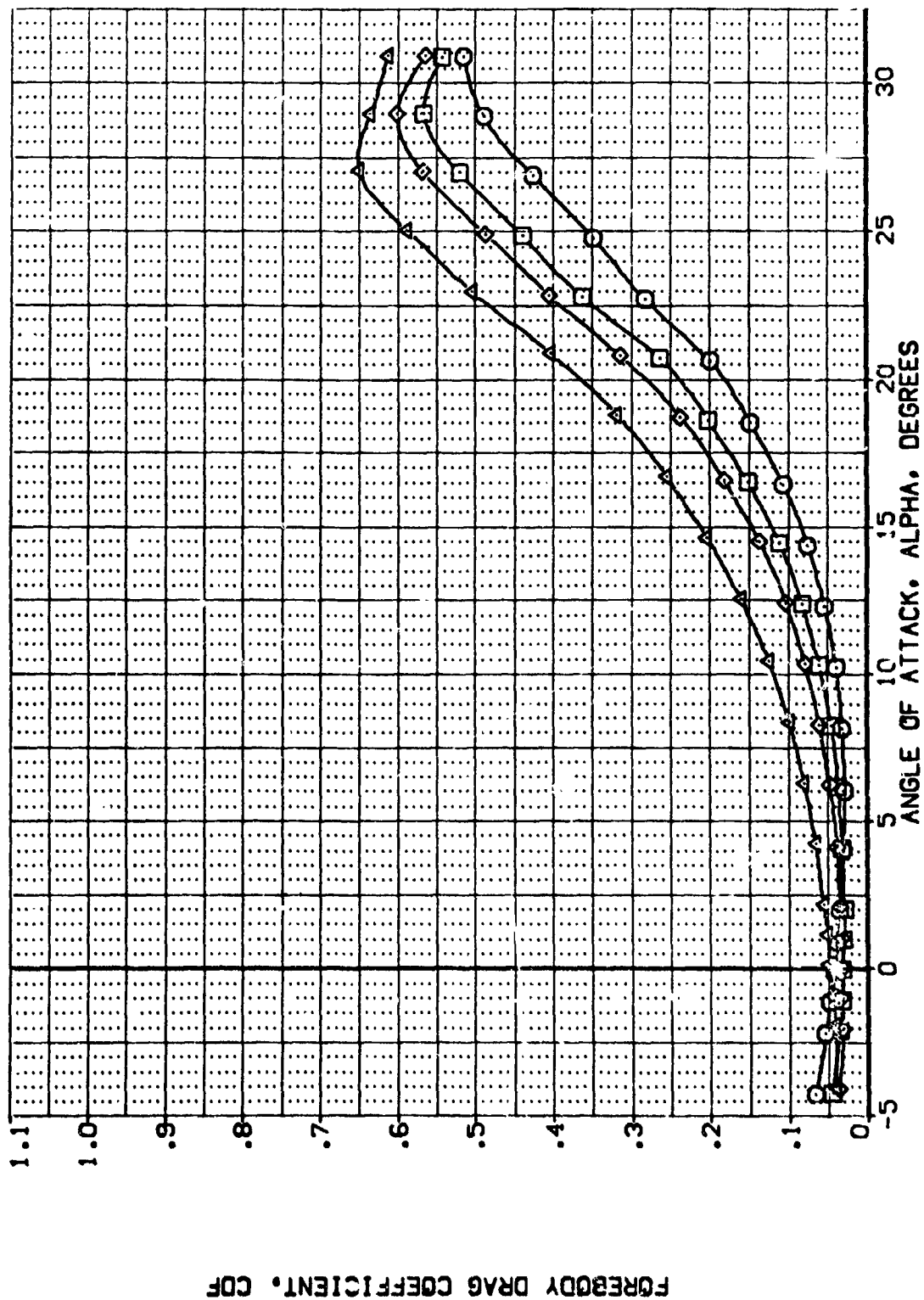


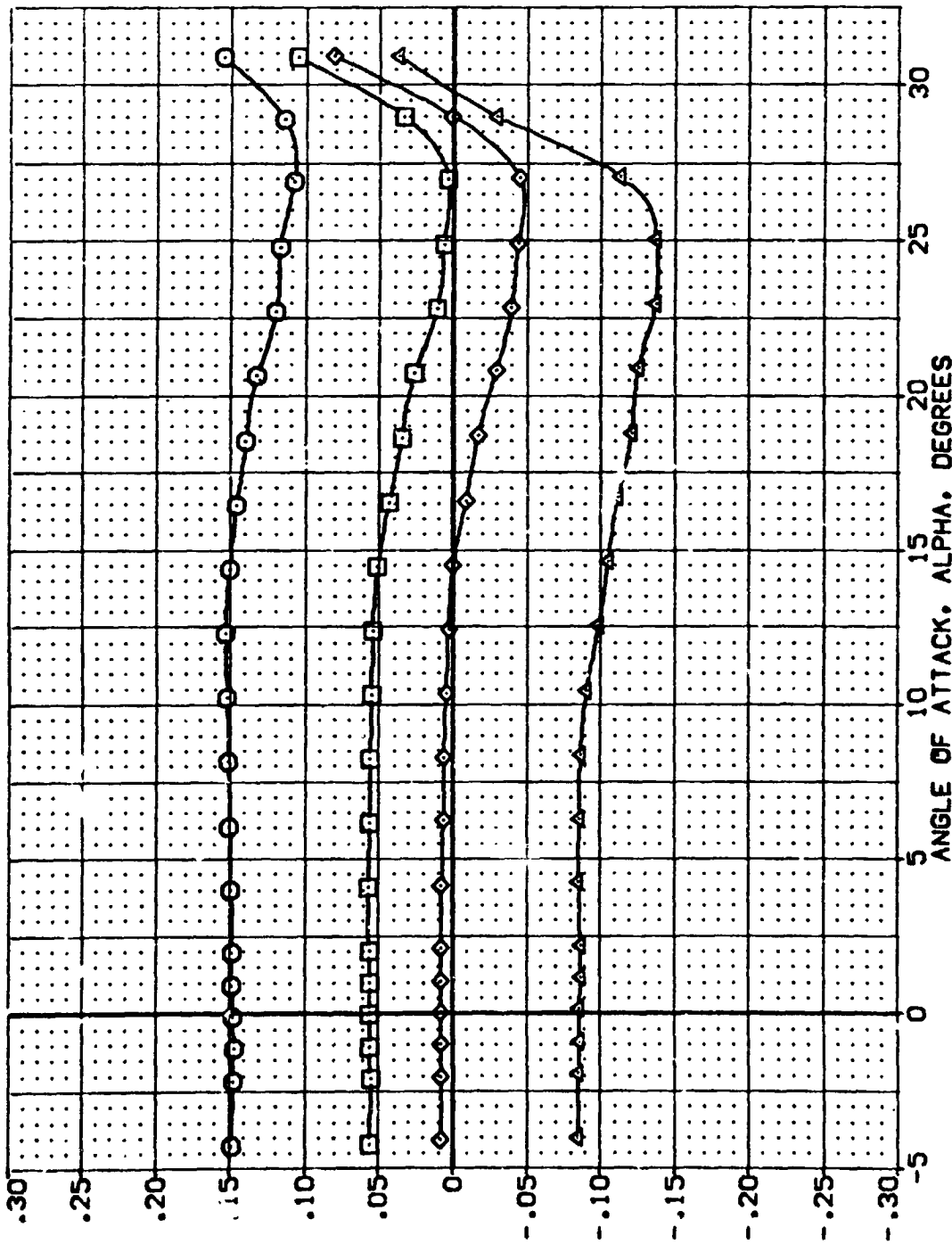
FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID FLEVON

MAJ MACH = .20





DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORCK	SOFLAP	RUDDER	REFERENCE INFORMATION
(BDZ110)	□	84528 82603 M7-8 V11626V85X9	-10.000	23.000	-12.000	.000	SREF 4.4119 SQ.FT.
(BDZ124)	○	84528 82603 M7-8 V11626V85X9	0.000	23.000	-12.000	.000	LREF 19.2299 IND-ES
(BDZ116)	△	84528 82603 M7-8 V11626V85X9	5.000	23.000	-12.000	.000	BREF 37.9359 IND-ES
(BDZ113)	◇	84528 82603 M7-8 V11626V85X9	15.000	23.000	-12.000	.000	XREF 43.5674 IND-ES
							YREF .0000 IND-ES
							ZREF 15.1875 IND-ES
							SCALE .0405 SCALE



PITCHING MOMENT COEFFICIENT, CLM

FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

(A)MACH = .20

ELEVON	SPDRK	BOFLAP	RUDDER	REFERENCE INFORMATION
-10.000	25.000	-12.000	.000	BREF 4.4119 50.FT. INO-ES
5.000	25.000	-12.000	.000	LREF 19.2299 INO-ES
15.000	25.000	-12.000	.000	BREF 37.9359 INO-ES
				XTRP 43.5974 INO-ES
				YTRP .0000 INO-ES
				ZTRP 15.1879 INO-ES
				SCALE .0403 SCALE

DATA SET SYMOL	CONFIGURATION DESCRIPTION
{B02110}	0100 V116Z26/8P53/8
{B02124}	0100 V116Z26/8P53/8
{B02116}	0100 V116Z26/8P53/8
{B02113}	0100 V116Z26/8P53/8

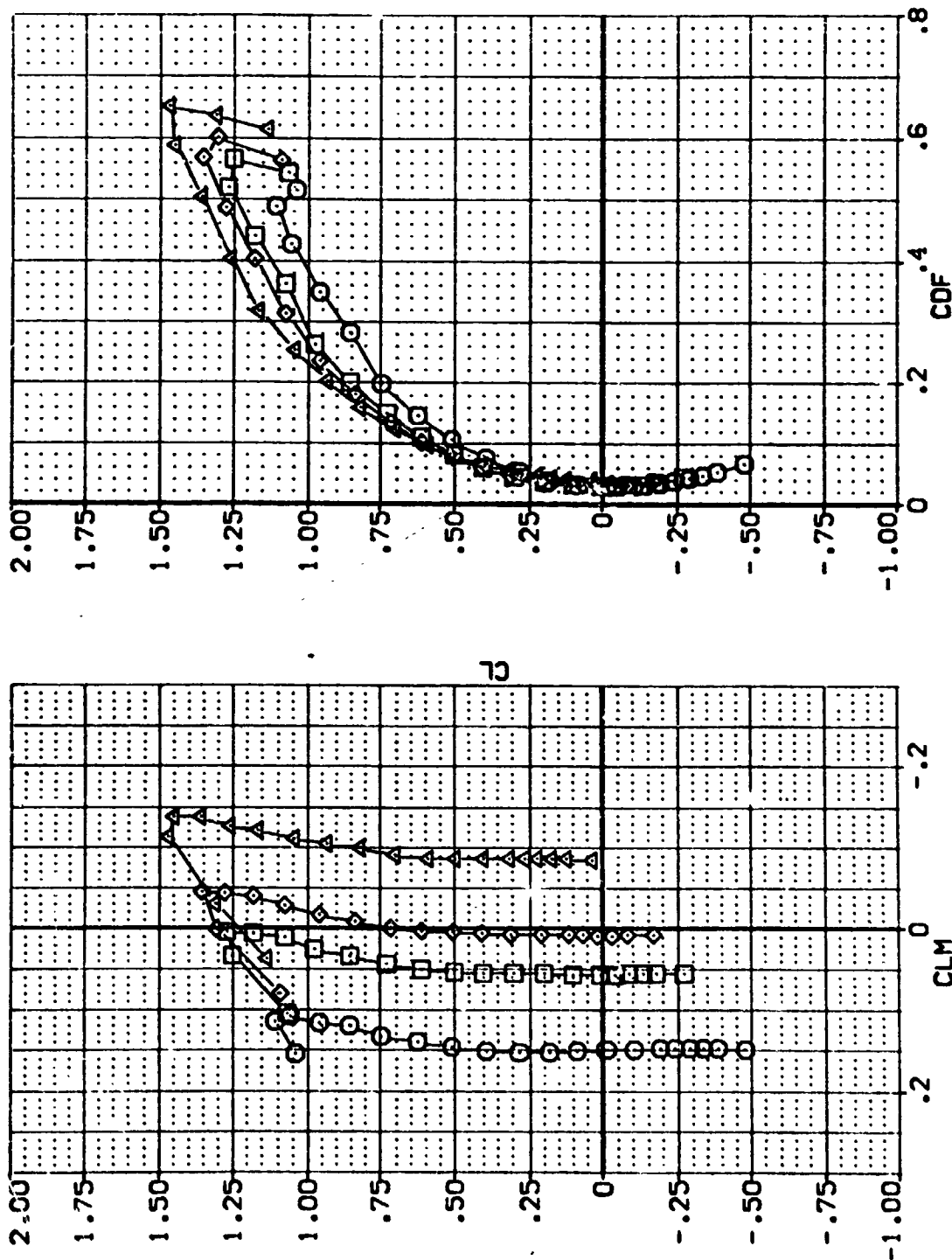


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

CLM = .20



0

Δ



DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ELEVON	SPORBN	BOFLAP	RUDDER	REFERENCE INFORMATION
(80Z110)	0A528	828C3	-10.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(80Z124)	0A528	828C3	5.000	25.000	-12.000	.000	LREF 19.2299 INCHES
(80Z116)	0A528	828C3	5.000	25.000	-12.000	.000	BREF 37.9359 INCHES
(80Z113)	0A528	828C3	15.000	25.000	-12.000	.000	XREF 43.5974 INCHES
							YREF .0000 INCHES
							ZREF 15.1875 INCHES
							SCALE .0405

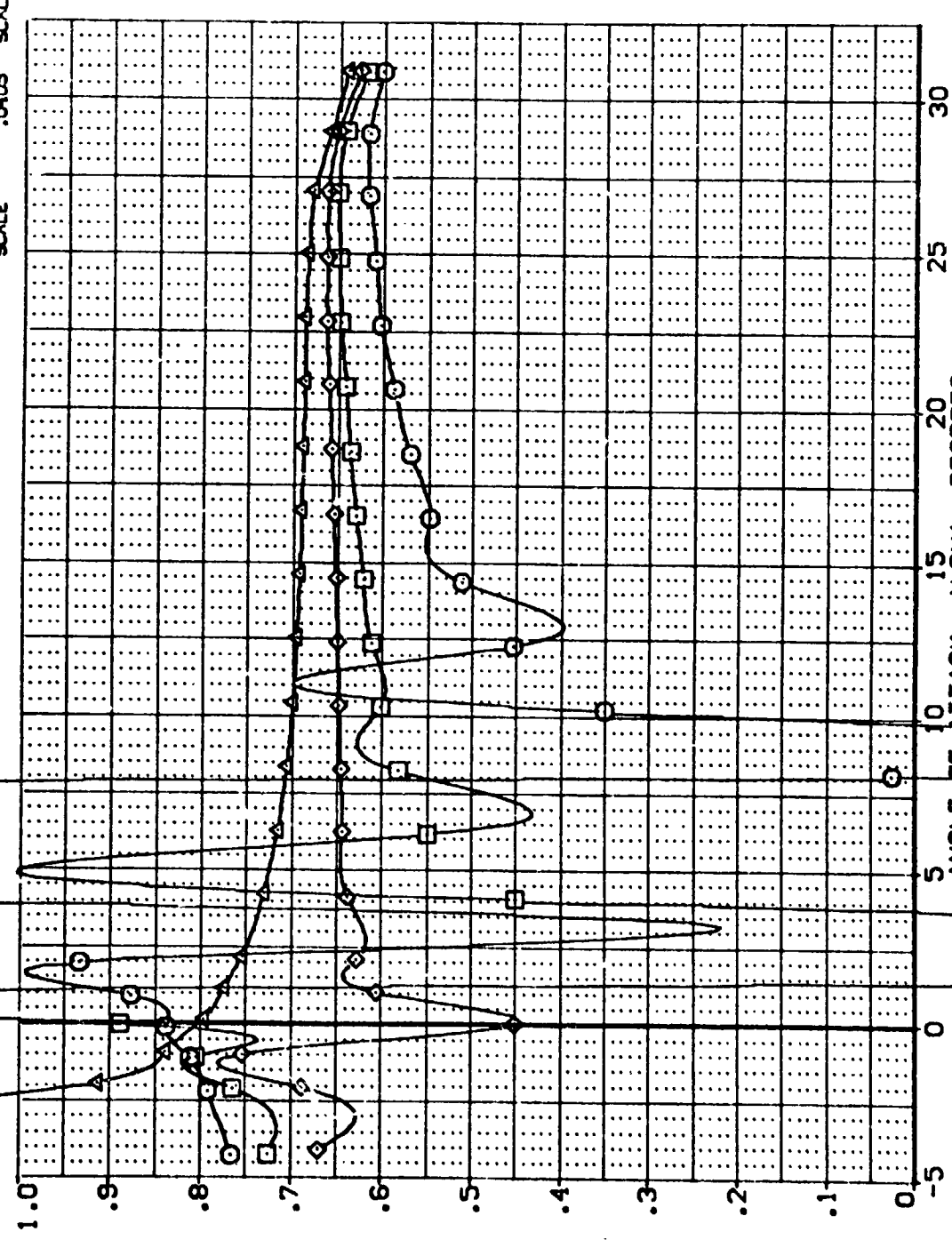


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON  
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	FLUDGR	REFERENCE INFORMATION
[B02110]	0A578 B2G29 M778 V11E26V8G3V3	-10.000	25.000	-12.000	.000	REF 4.4119 50.FT.
[B02124]	0A528 B2G29 M778 V11E26V8G3V3	.000	25.000	-12.000	.000	LREF 19.2299 100.FT.
[B02115]	0A528 B2G29 M778 V11E26V8G3V3	5.000	25.000	-12.000	.000	BREF 37.9359 100.FT.
[B02113]	0A628 B2G29 M778 V11E26V8G3V3	15.000	25.000	-12.000	.000	XREF 43.5974 100.FT.
						YREF 15.0000 100.FT.
						ZREF 15.1873 100.FT.
						SCALE .0405

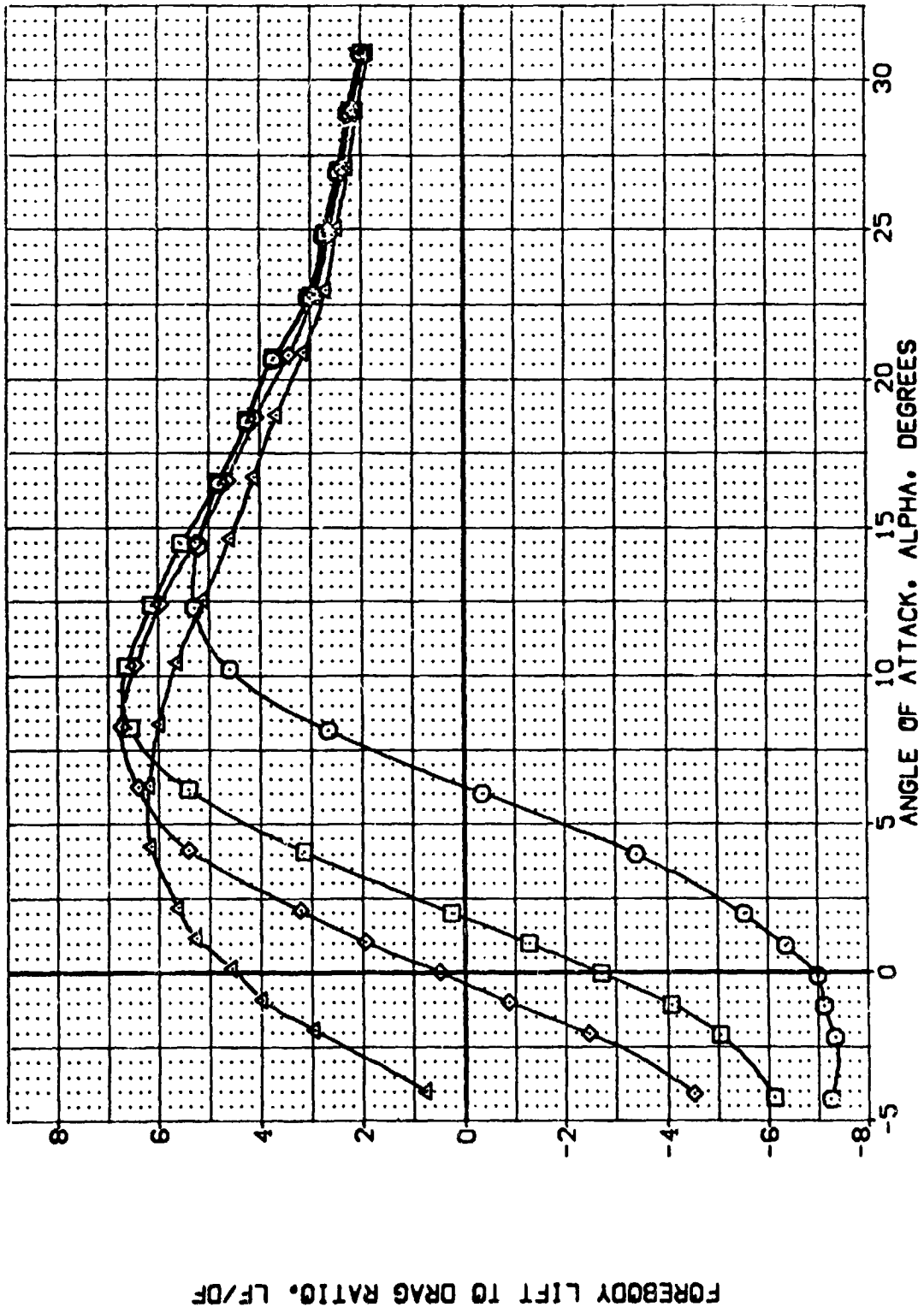


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

3

0A628 B26C9 M7F8 W116E26V8R5X9 (2DZ110)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	REF	REFERENCE INFORMATION
0	.000	.000	.200	BD FLAP	-12.000	20Z110	-10.000	4.4119	50.FT.
		.000	.000	RUDER	.000	20Z116	5.000	19.2289	INCHES
		25.000	BETA					37.9359	INCHES
								43.5974	INCHES
								15.0000	INCHES
								15.1875	INCHES
								.0405	SCALE

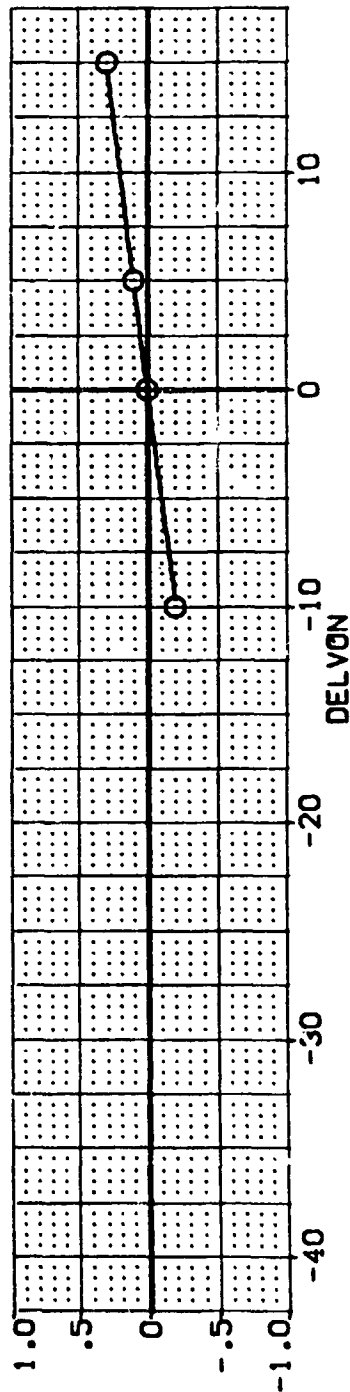
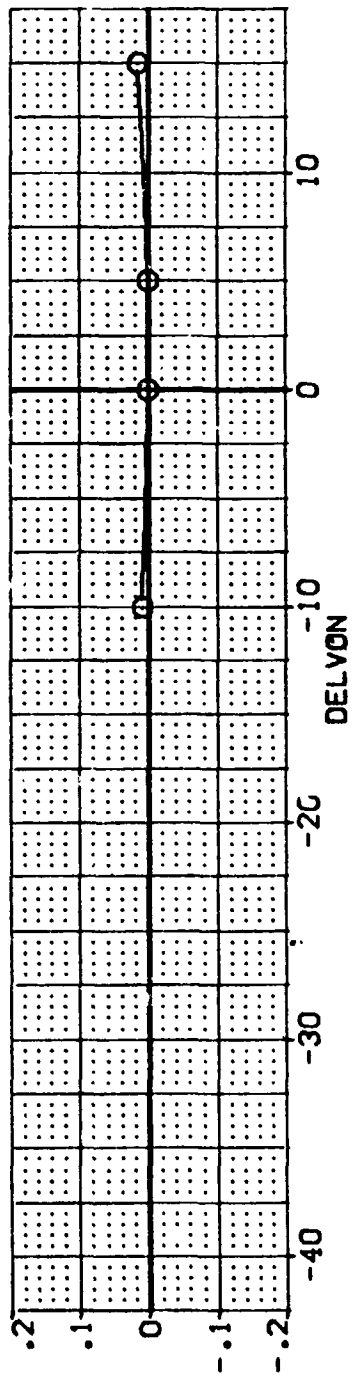
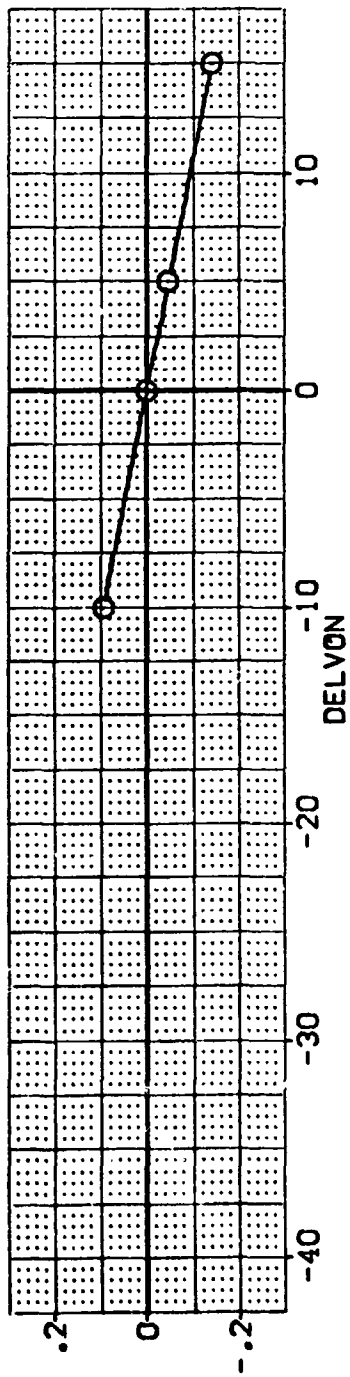


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

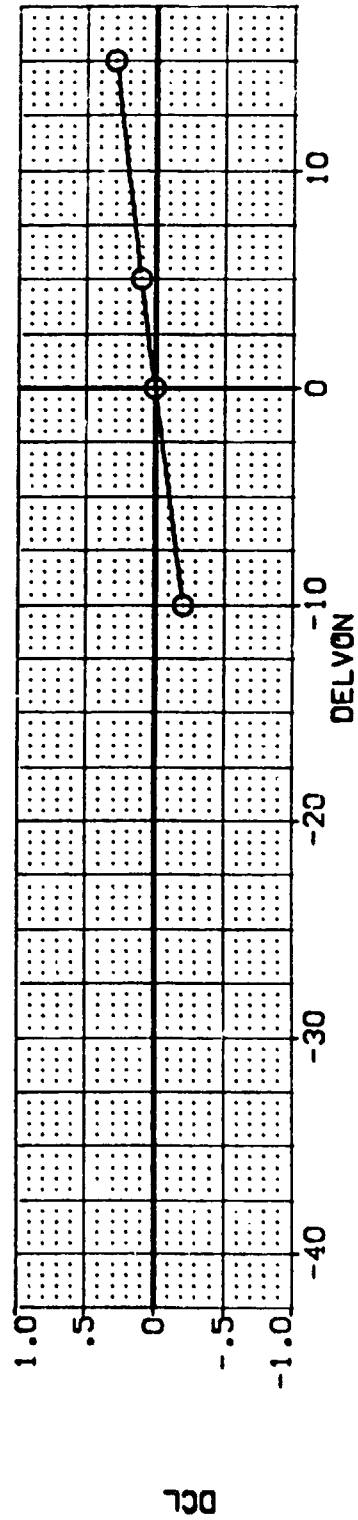
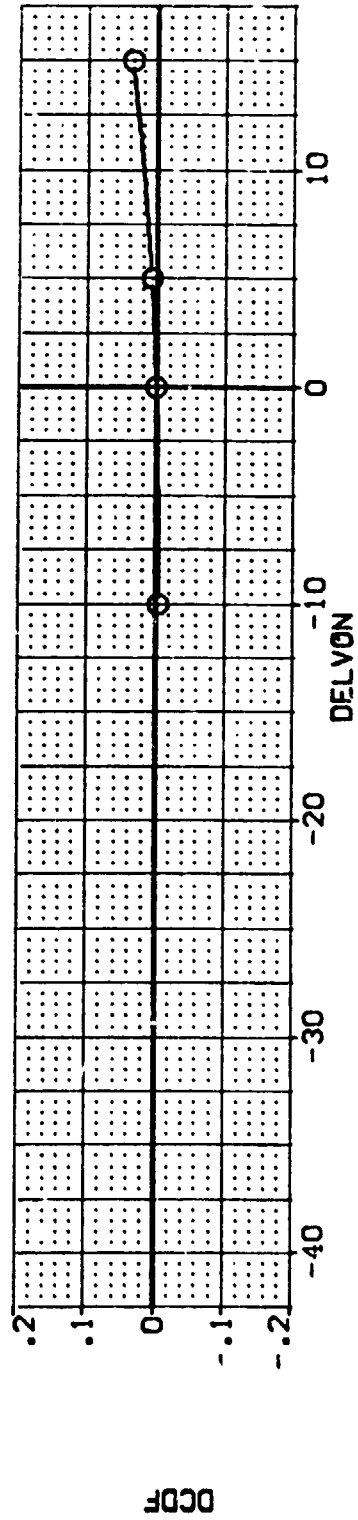
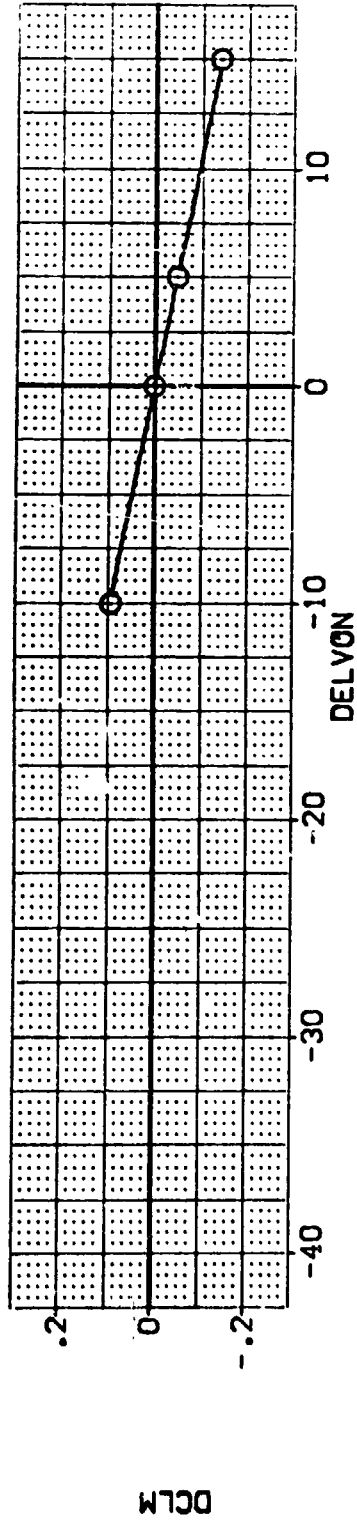
[illegible]

FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

0A628 B26C9 M7F8 W116E26V8R5X9 (20Z110)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	SREF	REFERENCE INFORMATION
O	10.000		.200 BOFLAP		-10.000	20Z110	.000	4.4119	SO.FT.
			.000 RUDDER		5.000	20Z113	.000	19.2299	INCHES
			25.000 BETA				15.000	37.9359	INCHES
								43.5974	INCHES
								15.0000	INCHES
								15.1875	INCHES
								.0405	SCALE

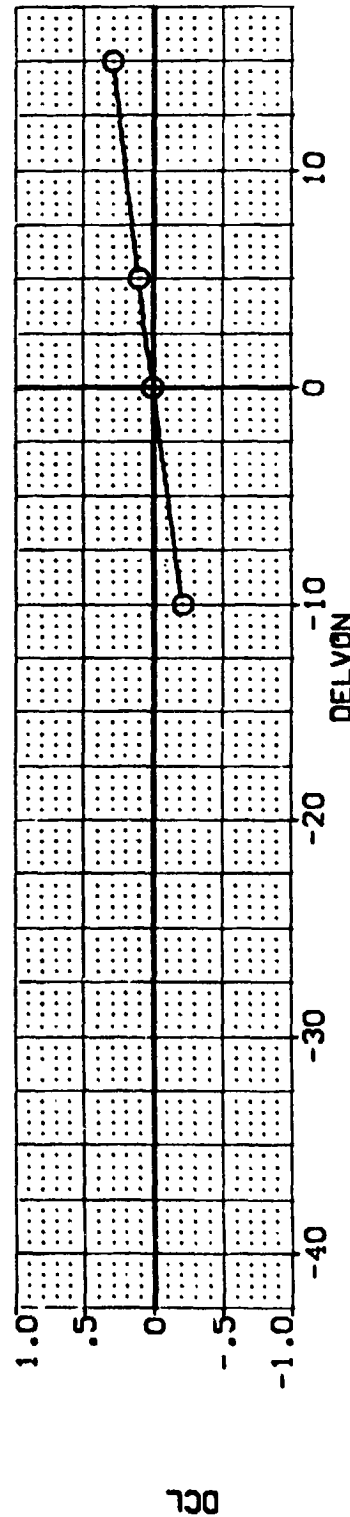
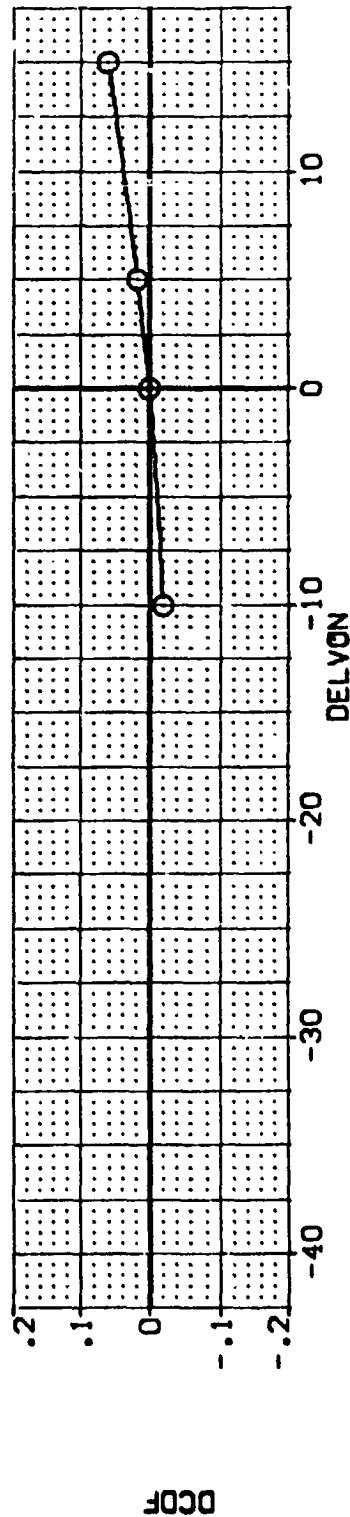
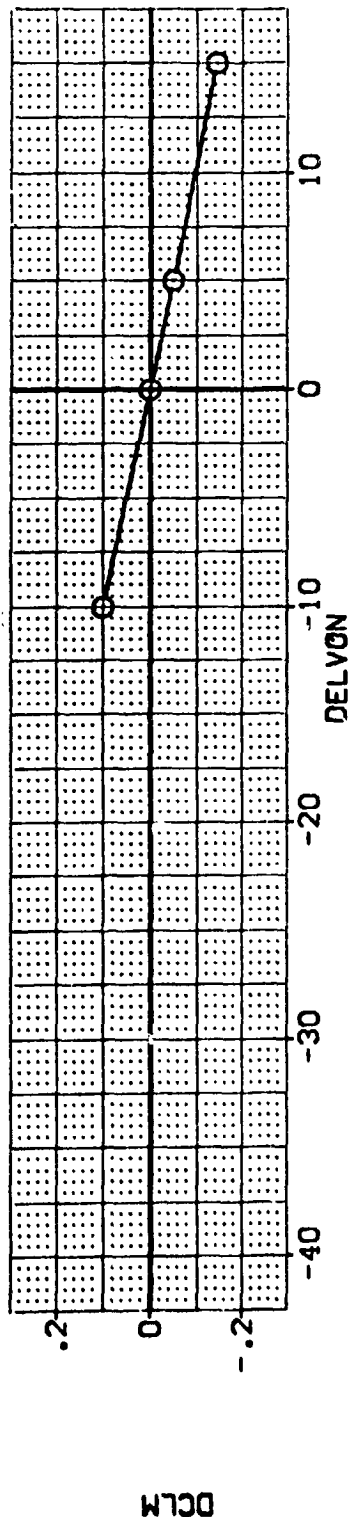


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

(202110)

W116E26V8R5X9

M7F8

B26C9

0A628

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	15.000	.200	BD FLAP	DEL VON	SREF
		.000	RUDER	DEL VON	LREF
		25.000	BETA	DEL VON	BREF
				DEL VON	XREF
				DEL VON	YREF
				DEL VON	ZREF
				DEL VON	SCALE
				DEL VON	SCALE

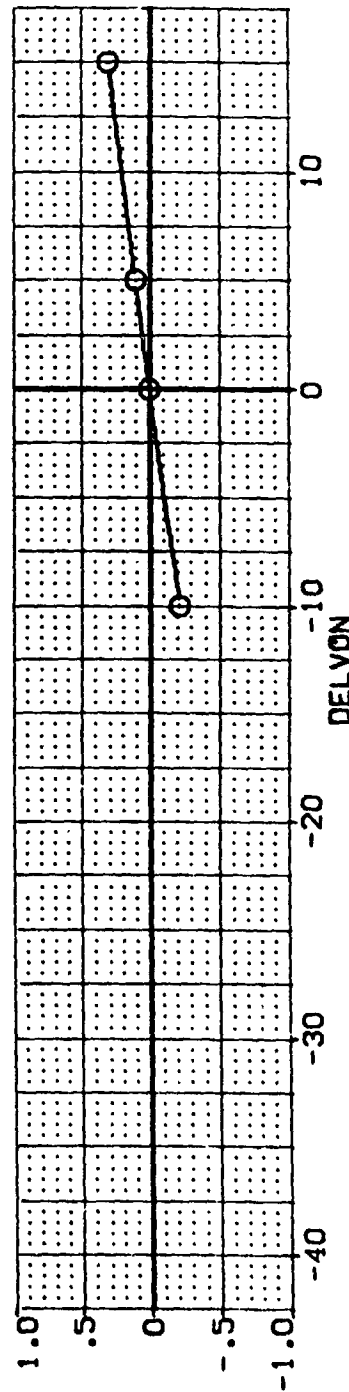
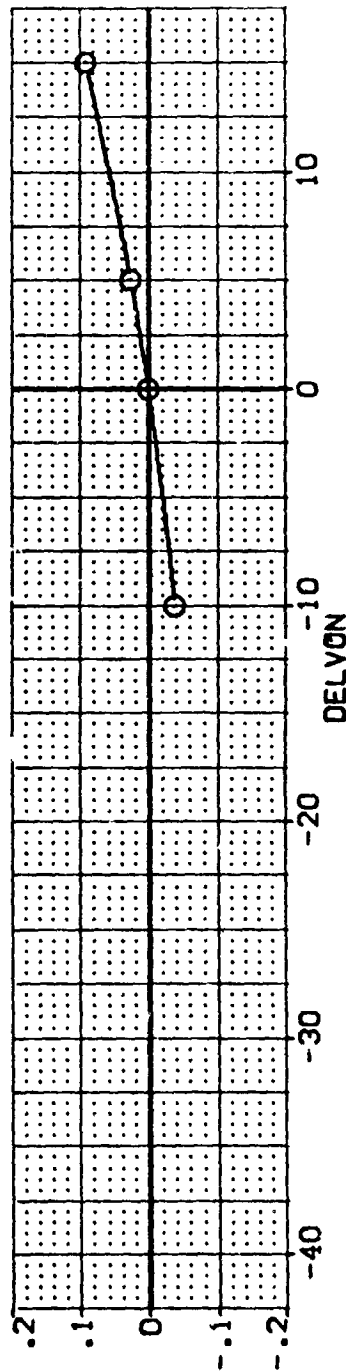
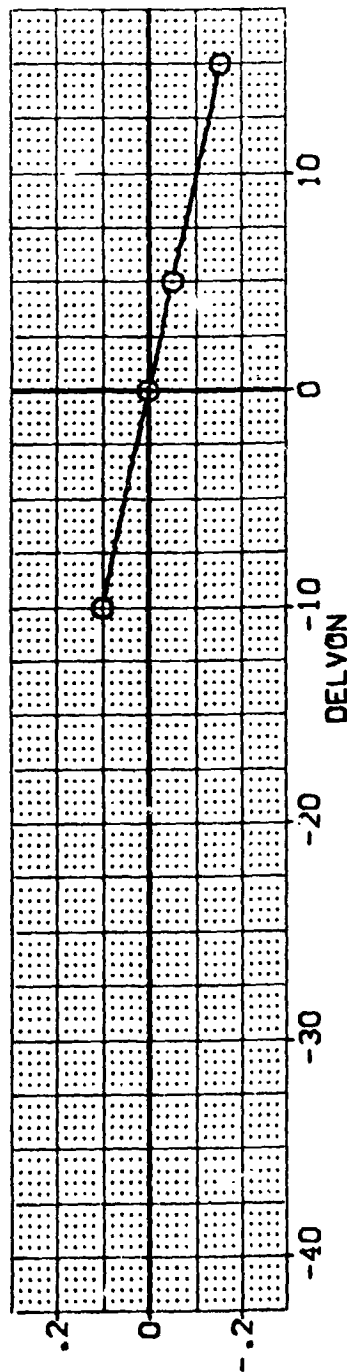


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON





0A628 B26C9 M7F8 W116E26V8R5X9 (20Z110)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	REF	REFERENCE INFORMATION
O	20.000	0.000	.200	EDFLAP	-12.000	20Z110	.000	4.4119	50. FT.
		0.000	.000	RUDER	.000	20Z110	.000	19.2299	INCHES
		25.000	BETA		5.000	20Z116	15.000	37.5359	INCHES
								43.5974	INCHES
								15.1875	INCHES
								.0405	SCALE

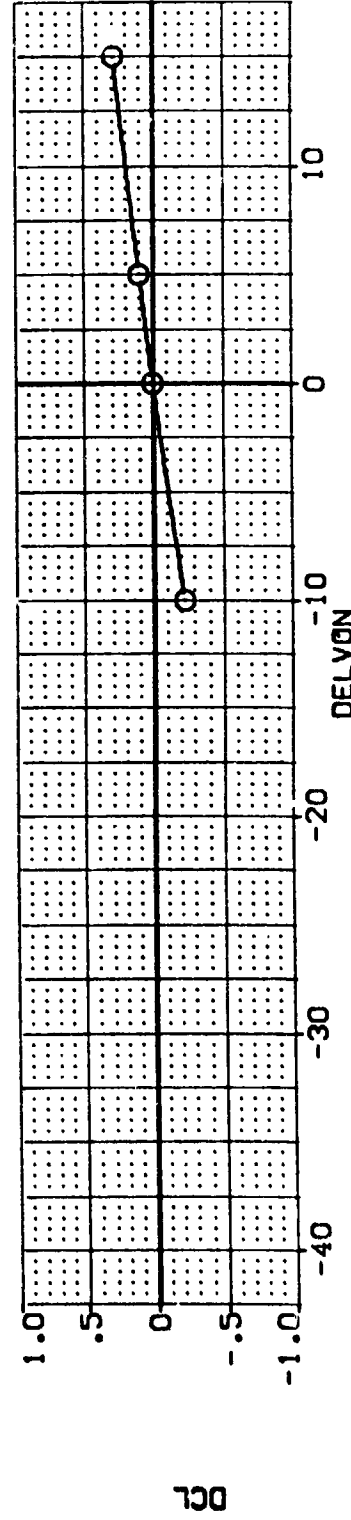
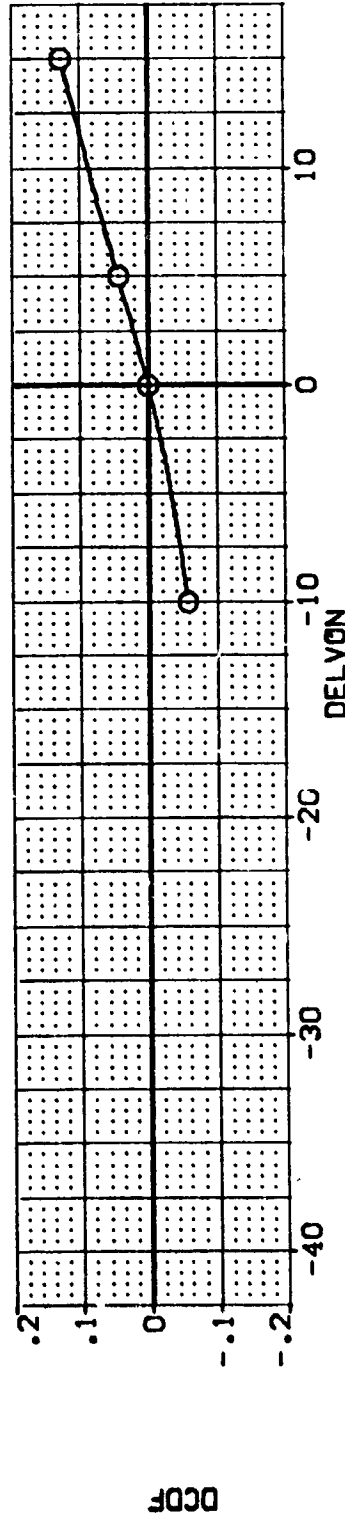
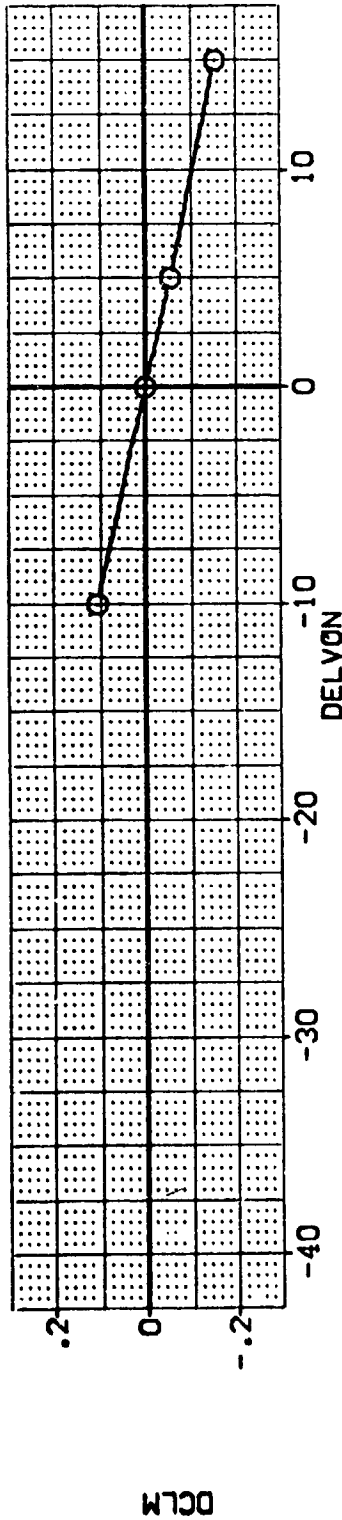


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

0A628 B26C9 M7F8 W116E26V8R5X9 (20Z110)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		MACH	BOFLAP	RUDDER	BETA	DELTON	DATASET	DELTON	SREF	50.FT.	SCALE
O	25.000	A1URON	.200	.000	25.000	-12.000	20Z110	.000	19.2259	INCHES	
		SPOBRK	.000	.000	25.000	-10.000	20Z113	.000	37.9359	INCHES	
						5.000		15.000	43.5974	INCHES	
									.0000	INCHES	
									15.1875	INCHES	
									.0405	SCALE	

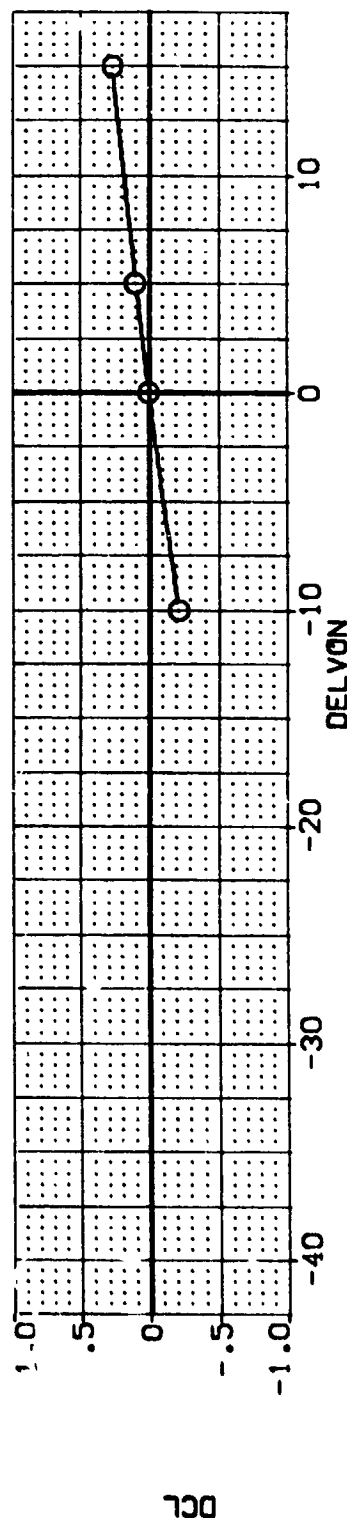
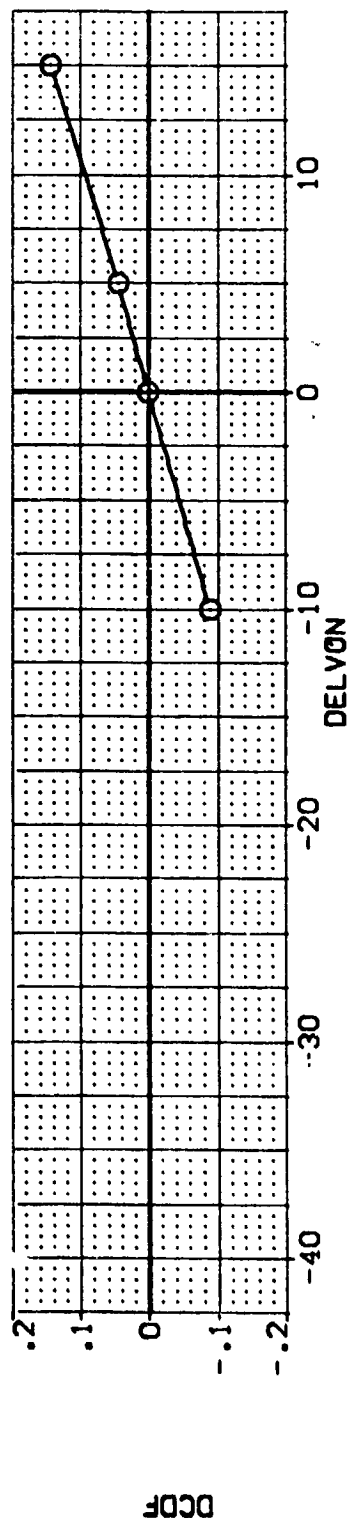
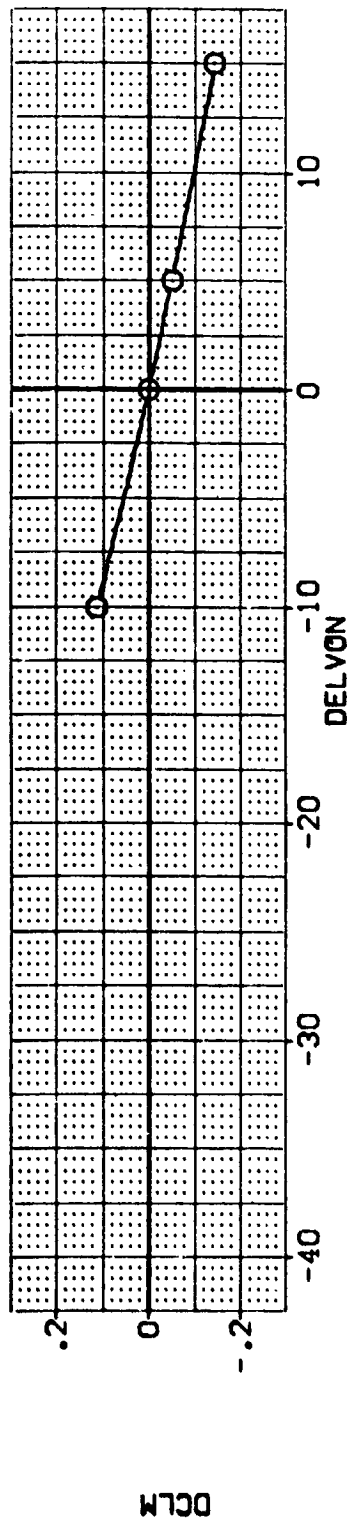


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

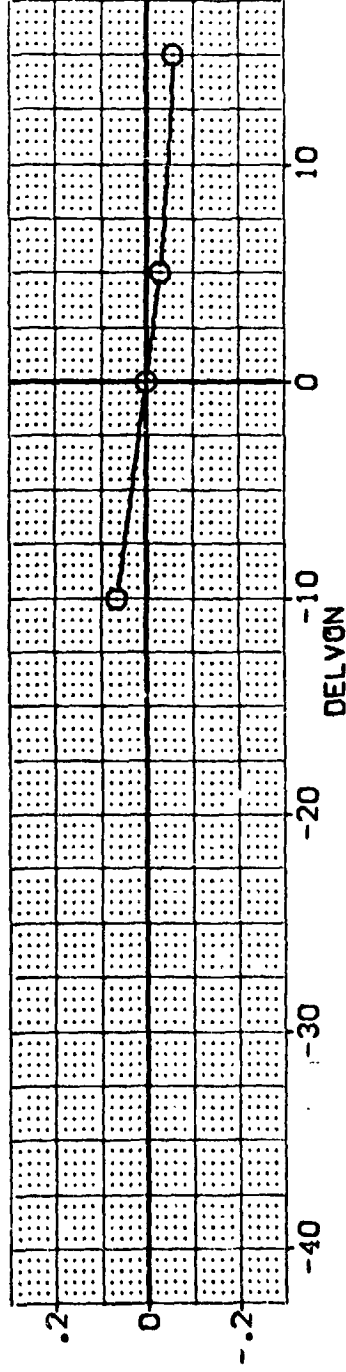


SYMBOL  
O

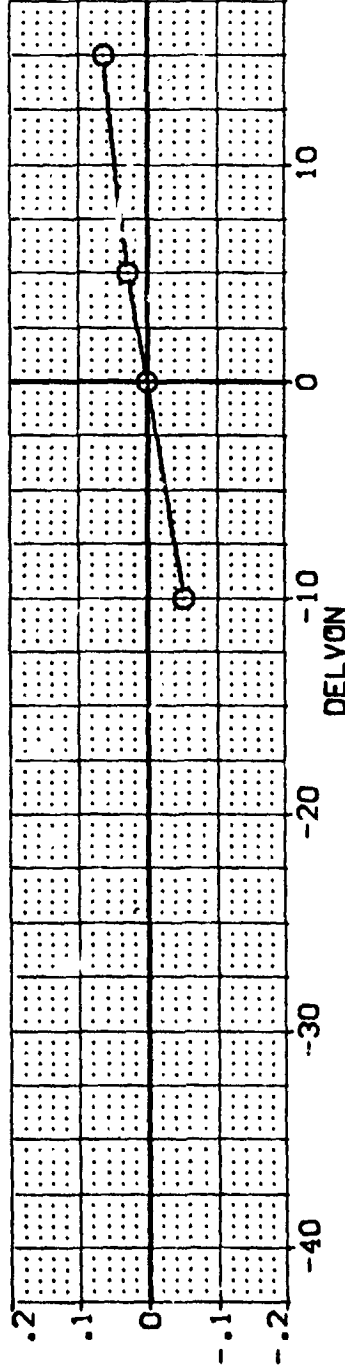
0A628 B26C9 M7F8 W116E26V8R5X9 (2DZ110)

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	30.000	MACH	.200	BDFLAP	-12.000	DATASET	DELTON	SRIF	50.4119
ATLON	.000	RUDDER	.000	20Z110	.000	20Z124	DELTON	LRIF	19.2289
SPOBRK	25.000	BETA	.000	20Z116	5.000	20Z113	DELTON	BRIF	37.9359
							DELTON	YMRP	43.5574
							DELTON	ZMRP	.0000
							DELTON	SCALE	15.1875
							DELTON	SCALE	.0405

DCLM



DCDF



DCL

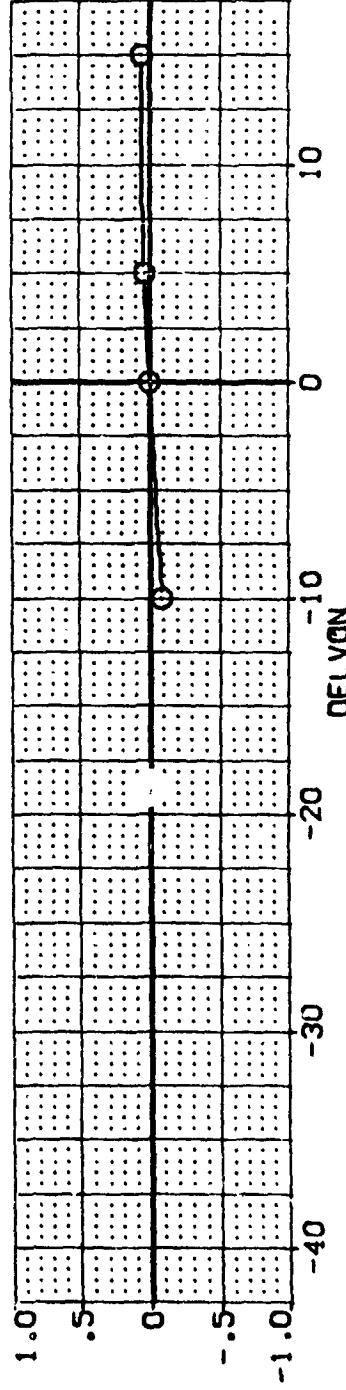


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

(202110)

SYMBOL		ALPHA	PARAMETRIC VALUES			DATA SOURCE		DELTON	REF	REFERENCE INFORMATION	
			BOFLAP	RODOR	BETA	DATASET	DELTON			SO.FT.	
	0	.000	.200	.000	25.000	-12.000	-10.000	.000	REF	4.4119	INCHES
						.000	20Z110	.000	REF	19.2259	INCHES
						.000	20Z116	15.000	REF	37.5359	INCHES
									XREF	43.5974	INCHES
									YREF	.0000	INCHES
									ZREF	15.1875	INCHES
									SCALE	.0405	SCALE

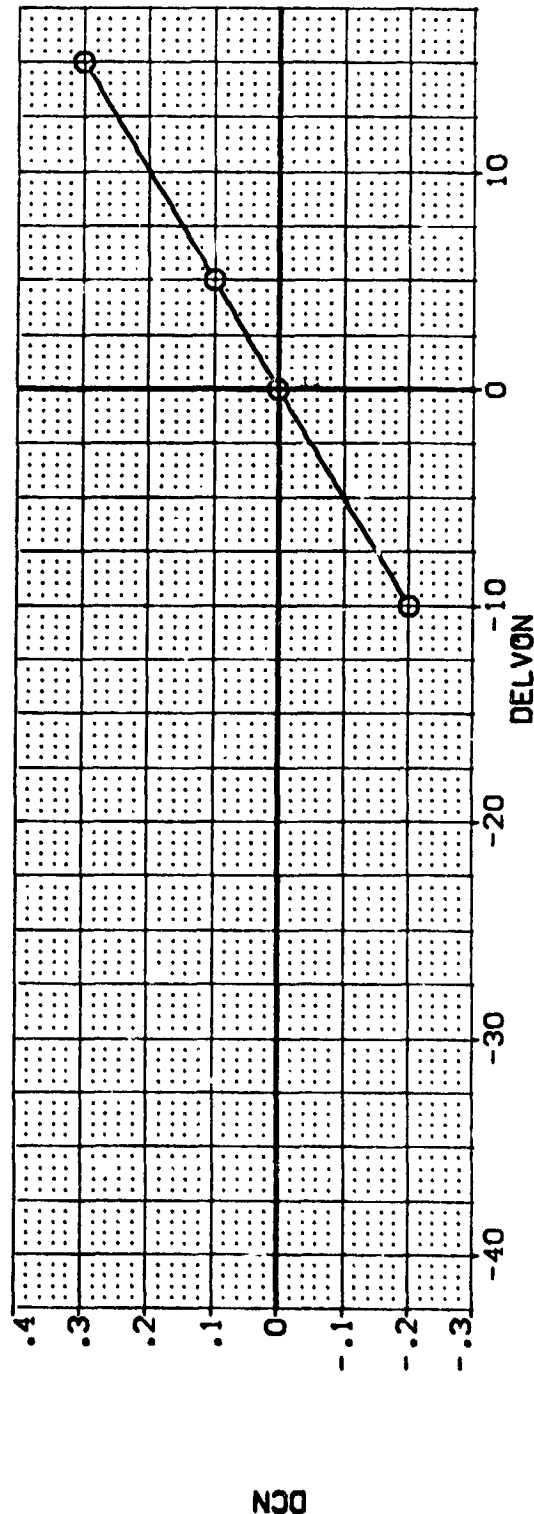
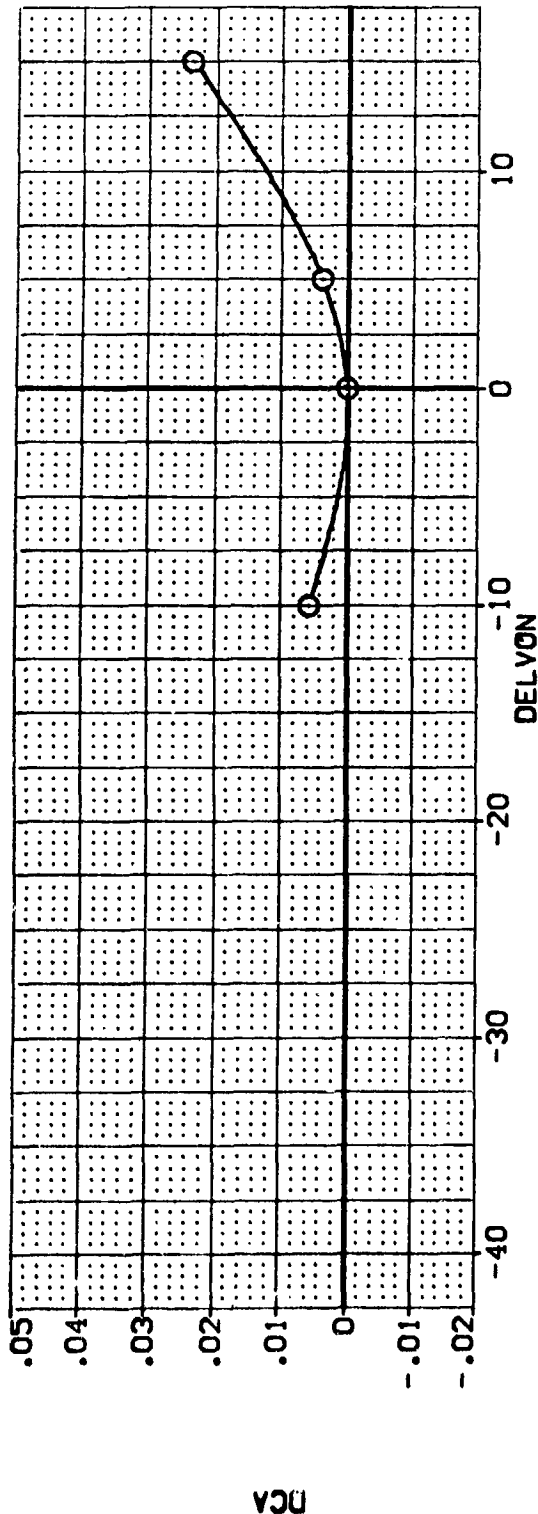


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

QA62B B26C9 M7F8 W116E26V8R5X9

(202110)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
0	5.000	WACH	.200	BOFLAP	-12.000	DATASET	DELVON	SREF	4.4119	SO.FY.
		ATLIRON	.000	RUDDER	.000	20Z110	.000	LREF	19.2259	INDEFS
		SPOBRK	25.000	BETA	.000	20Z116	15.000	BREF	37.9359	INDEFS
								XPRP	43.5574	INDEFS
								THRP	.0000	INDEFS
								ZHRP	15.1875	INDEFS
								SCALE	.0405	SCALE

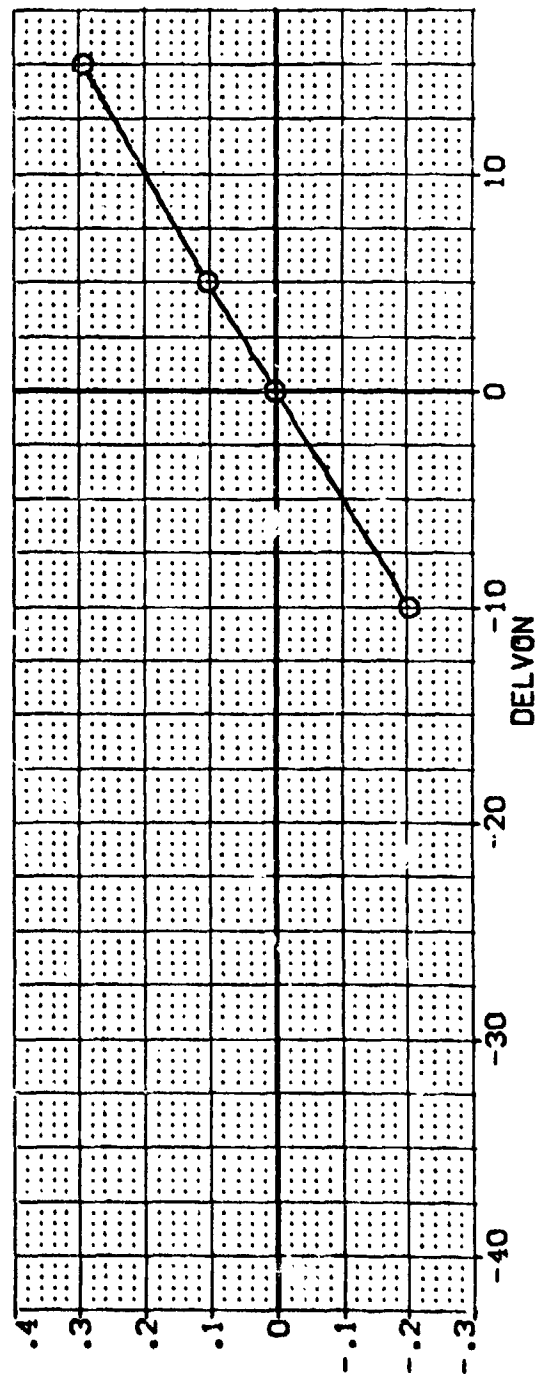
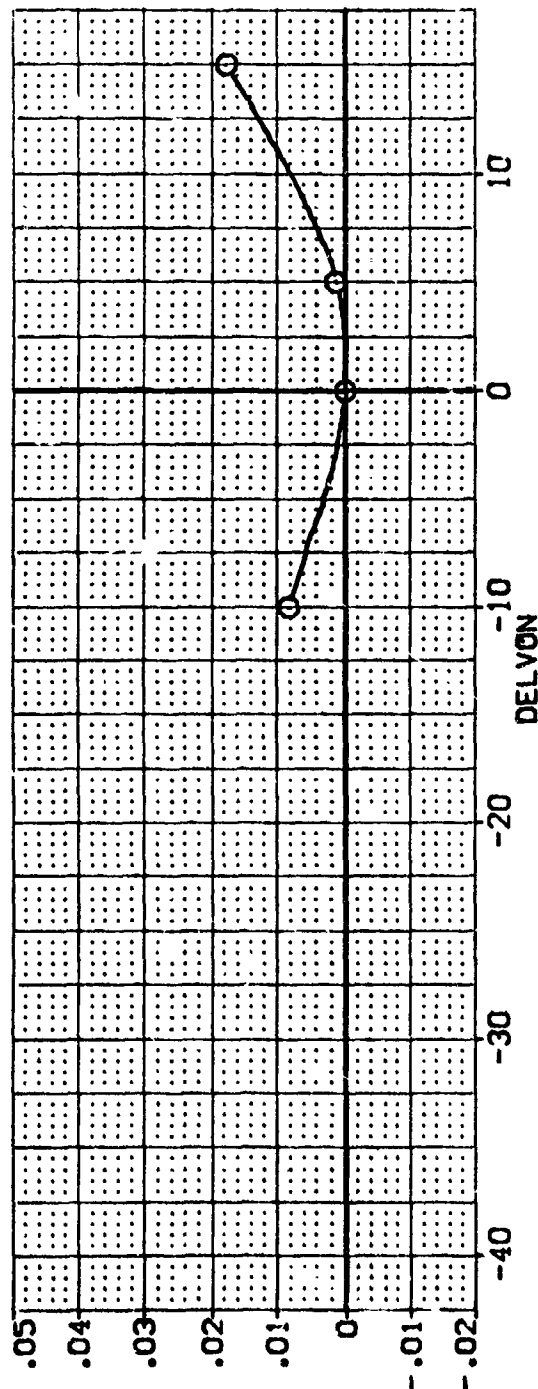


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON





0A628 B26C3 M7F8 W116E26V8R5X9 (20Z110)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	15.000	BOFLAP	20Z110	REF	50.000
MAOH	.200	DEL VON	20Z110	REF	19.2258
AIRLON	.000	DEL VON	20Z110	REF	37.9358
SPOBRK	25.000	DEL VON	20Z110	REF	43.5874
BETA		DEL VON	20Z110	REF	15.0000
		DEL VON	20Z110	REF	15.1875
		DEL VON	20Z110	REF	SCALE

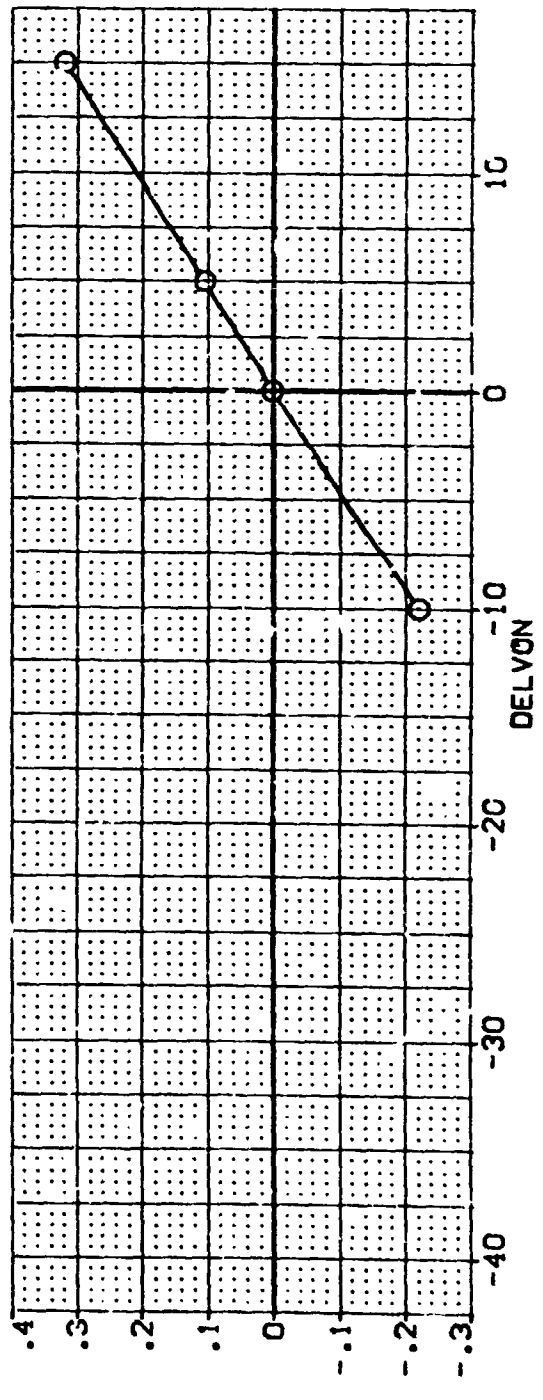
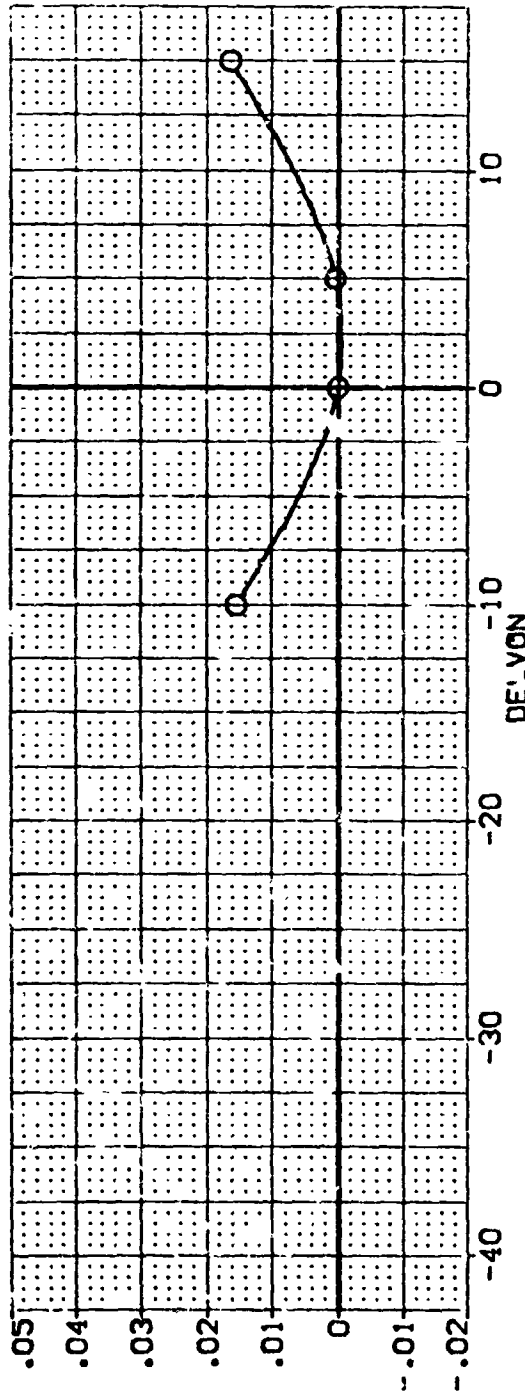


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

$$\frac{2m\omega}{\hbar}$$


FIG 41 ELEVON EFFECTIVENESS. FREE AIR. GEAR OFF. SOLID ELEVON

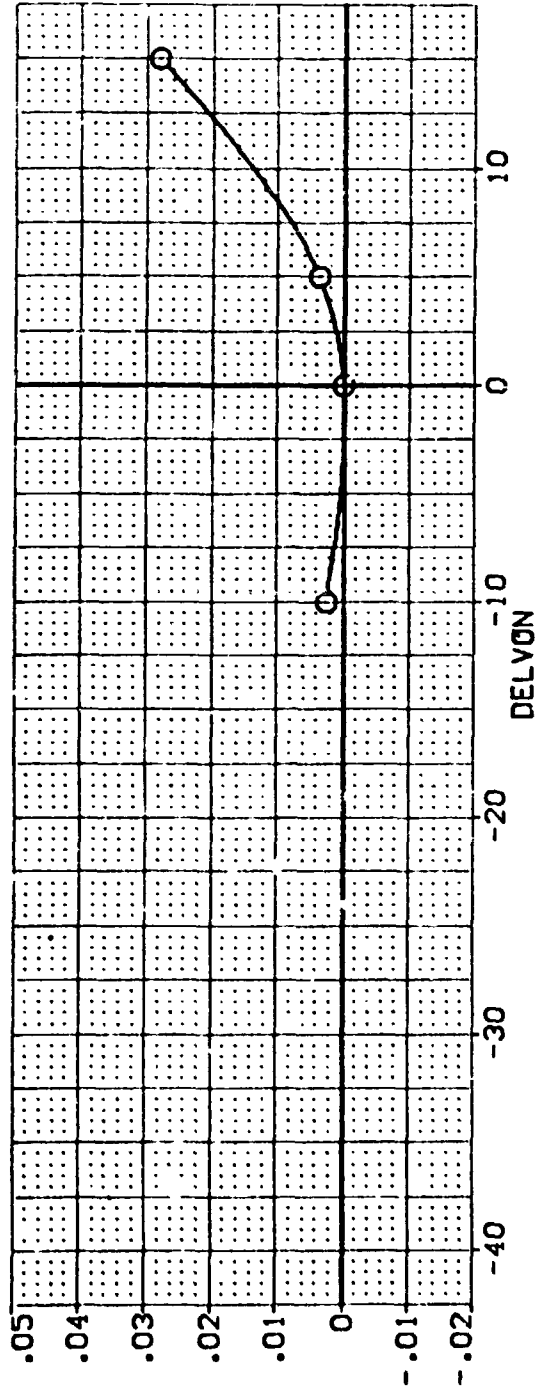


4 4

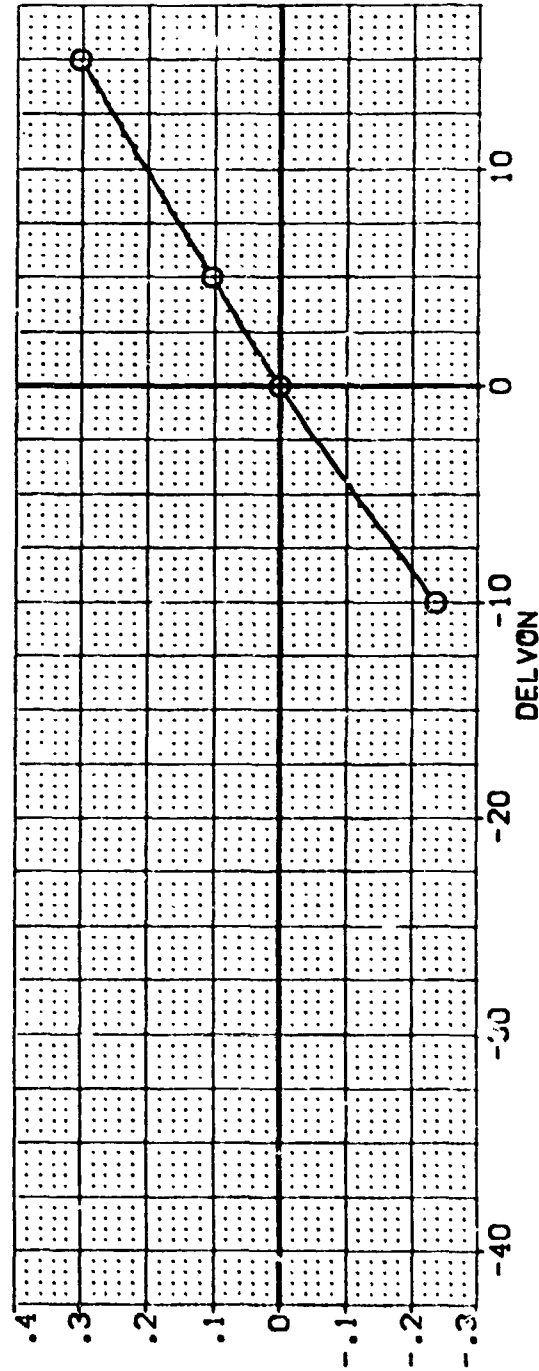


0A628 B26C9 M7F8 W11626V8R5X9 (20Z110)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DELTON	DATASET	DELTON	REF	REFERENCE INFORMATION
0	25.000		.200 BOFLAP	-12.000	.000	20Z110	-10.000	LA REF	50. FT.
			.000 RUDDER	.000	.000	20Z110	-10.000	LA REF	19.2259
			25.000 BETA	.000	.000	20Z110	-10.000	LA REF	37.9358
								LA REF	43.5974
								LA REF	15.0000
								LA REF	15.1875
								LA REF	SCALE
								LA REF	.0405



DCA



NCO

FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

0AS2B B26C9 M7F8 W116E26V8R5X9 (20Z110)  
 SYMBOL 0  
 ALPHA 30.000  
 MACH .200  
 AILRON .000  
 SPOBRK 25.000  
 BETA .000  
 RUDDER .000  
 BOFLAP .000  
 DATASET -12.000  
 DELVON -10.000  
 DATA SOURCE 20Z110  
 DATASET 20Z110  
 DELVON 15.000  
 REFERENCE INFORMATION  
 SREF 4.4119  
 LREF 19.2289  
 BREF 37.9359  
 XREF 43.9374  
 YREF .000  
 ZREF 15.1875  
 SCALE .0405  
 SO.FT. INO-ES  
 INO-ES INO-ES  
 INO-ES INO-ES  
 INO-ES INO-ES  
 INO-ES INO-ES

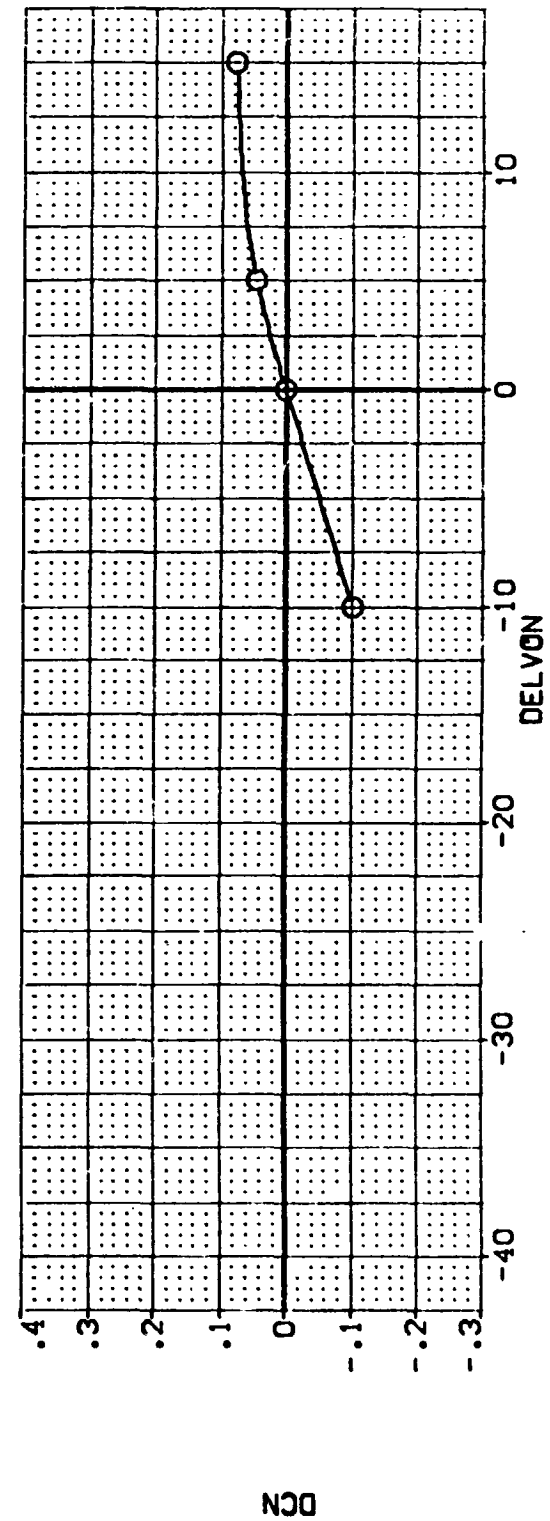
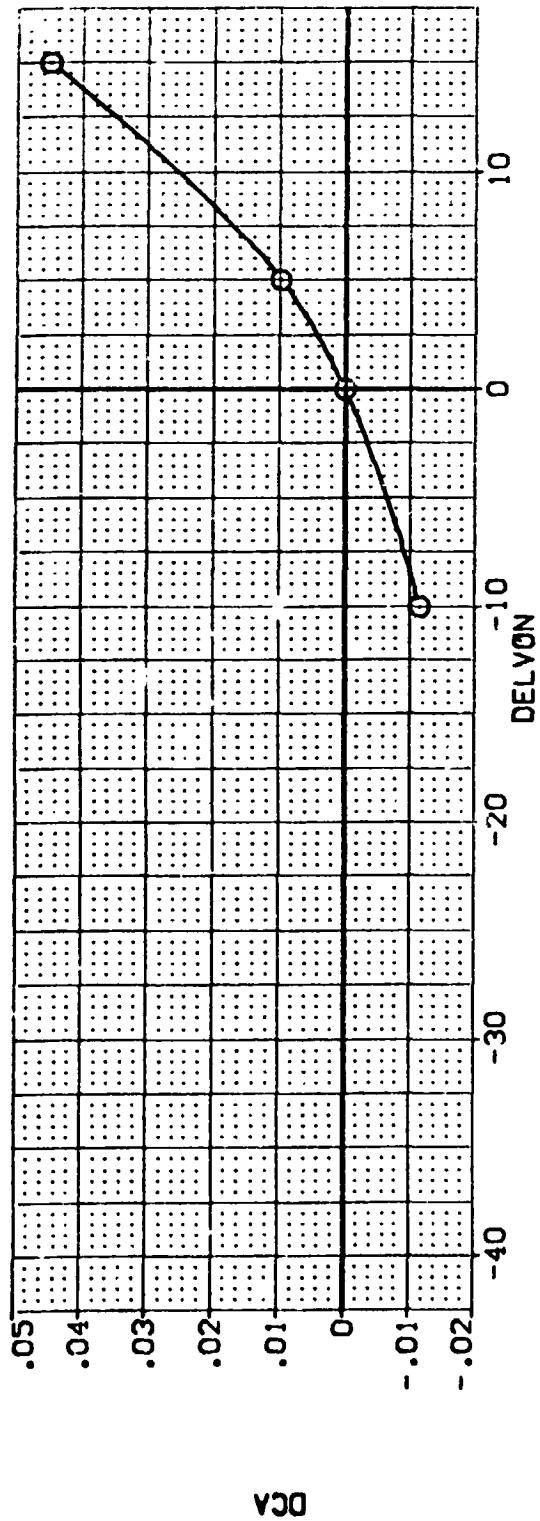


FIG 41 ELEVON EFFECTIVENESS, FREE AIR, GEAR OFF, SOLID ELEVON

6-4

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOROK	ALIGN	REFERENCE INFORMATION
(R0Z118)	0A628 B26C3 M7F8 V116E28V8F5X9	-5.000	.000	25.000	.000	SREF 4.4119 SQ.FT.
(R0Z119)	0A628 B26C3 M7F8 V116E28V8F5X9	5.000	.000	25.000	.000	LREF 19.2299 INCHES
(R0Z120)	0A628 B26C3 M7F8 V116E28V8F5X9	10.000	.000	25.000	.000	BREF 37.9359 INCHES
(R0Z121)	0A628 B26C3 M7F8 V116E28V8F5X9	15.000	.000	25.000	.000	XREF 43.5974 INCHES
(R0Z122)	0A628 B26C3 M7F8 V116E28V8F5X9	20.000	.000	25.000	.000	YREF .0000 INCHES
(R0Z123)	0A628 B26C3 M7F8 V116E28V8F5X9					ZREF 15.1875 INCHES
						SCALE .0405

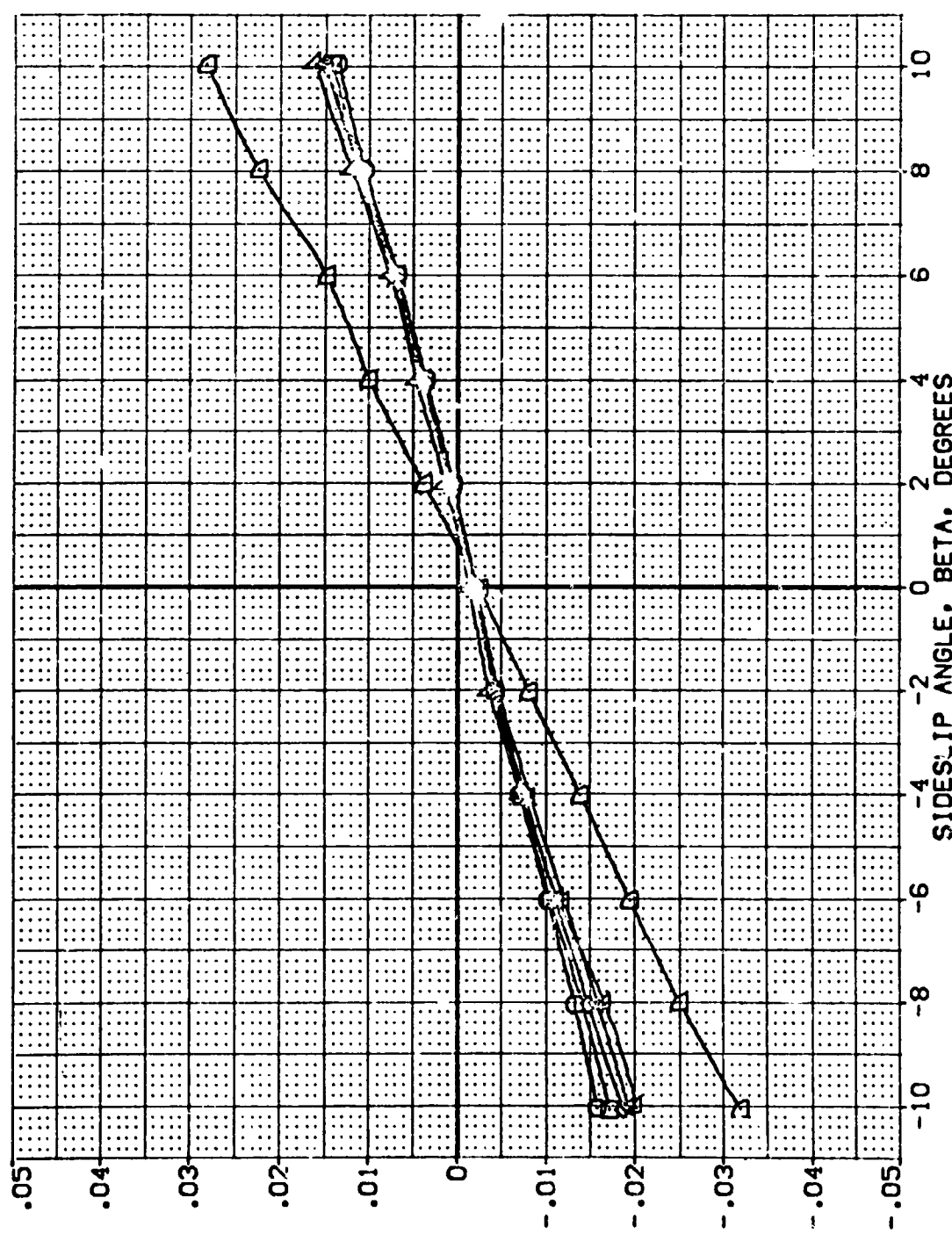


FIG 42 LAT-DIR STAB. FREE AIR GEAR OFF, 0 RUDDER BASELINE ELEVON GAP 25 FLARE  
(A)MACH = .20 PAGE 471

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOILER	AILERON	REFERENCE INFORMATION
(R02119)	0A528 826C9 M7F8 V116228V85X9	-5.000	.000	25.000	.000	SREF 4.4119 SO.FT.
(R02119)	0A528 826C9 M7F8 V116228V85X9	.000	.000	25.000	.000	LREF 19.2299 IN-ES
(R02120)	0A528 826C9 M7F8 V116228V85X9	5.000	.000	25.000	.000	BREF 37.9359 IN-ES
(R02121)	0A528 826C9 M7F8 V116228V85X9	10.000	.000	25.000	.000	MREF 43.5874 IN-ES
(R02122)	0A528 826C9 M7F8 V116228V85X9	15.000	.000	25.000	.000	MREF 15.1873 IN-ES
(R02123)	0A528 826C9 M7F8 V116228V85X9	20.000	.000	25.000	.000	SCALE .0405

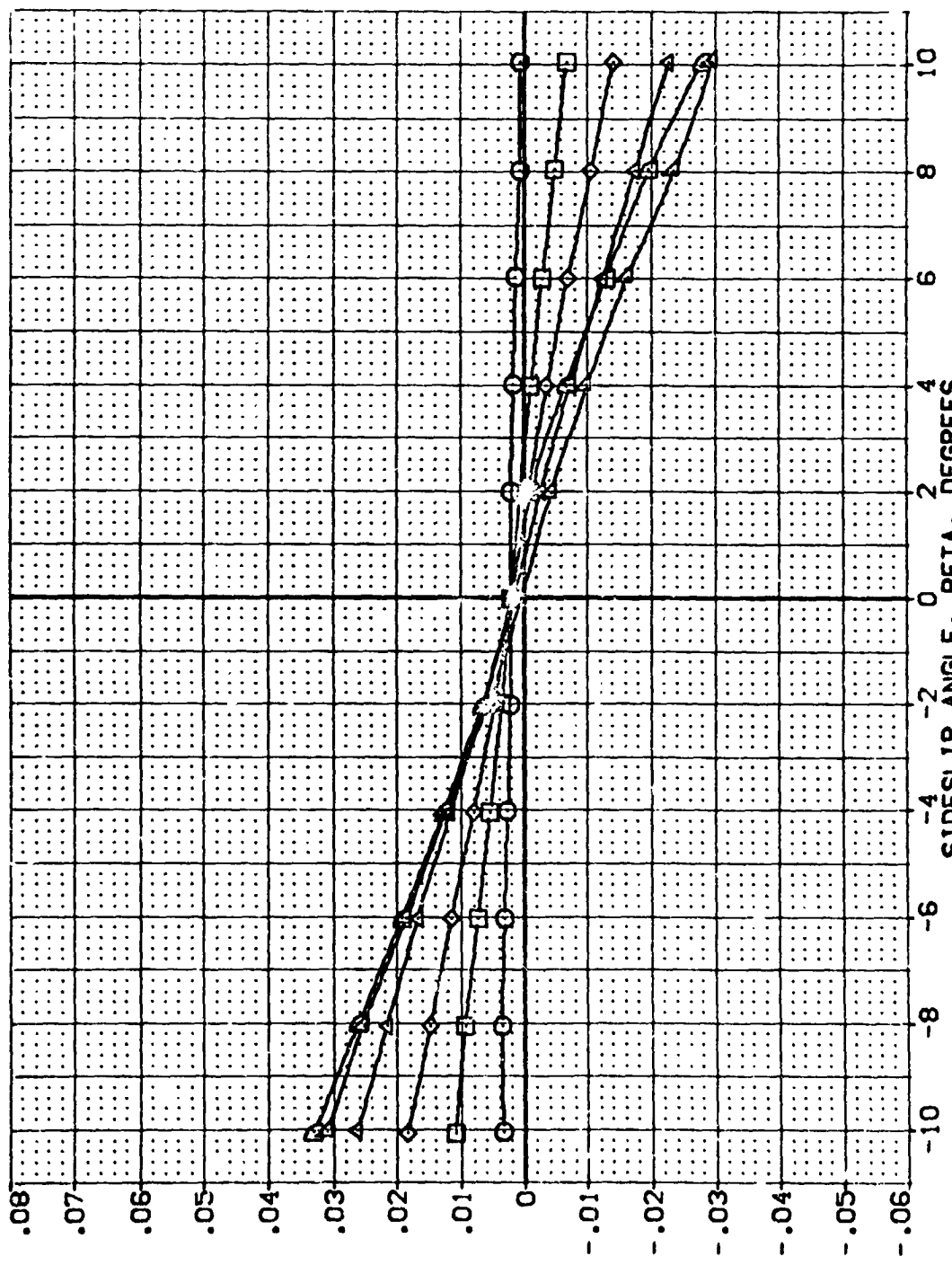
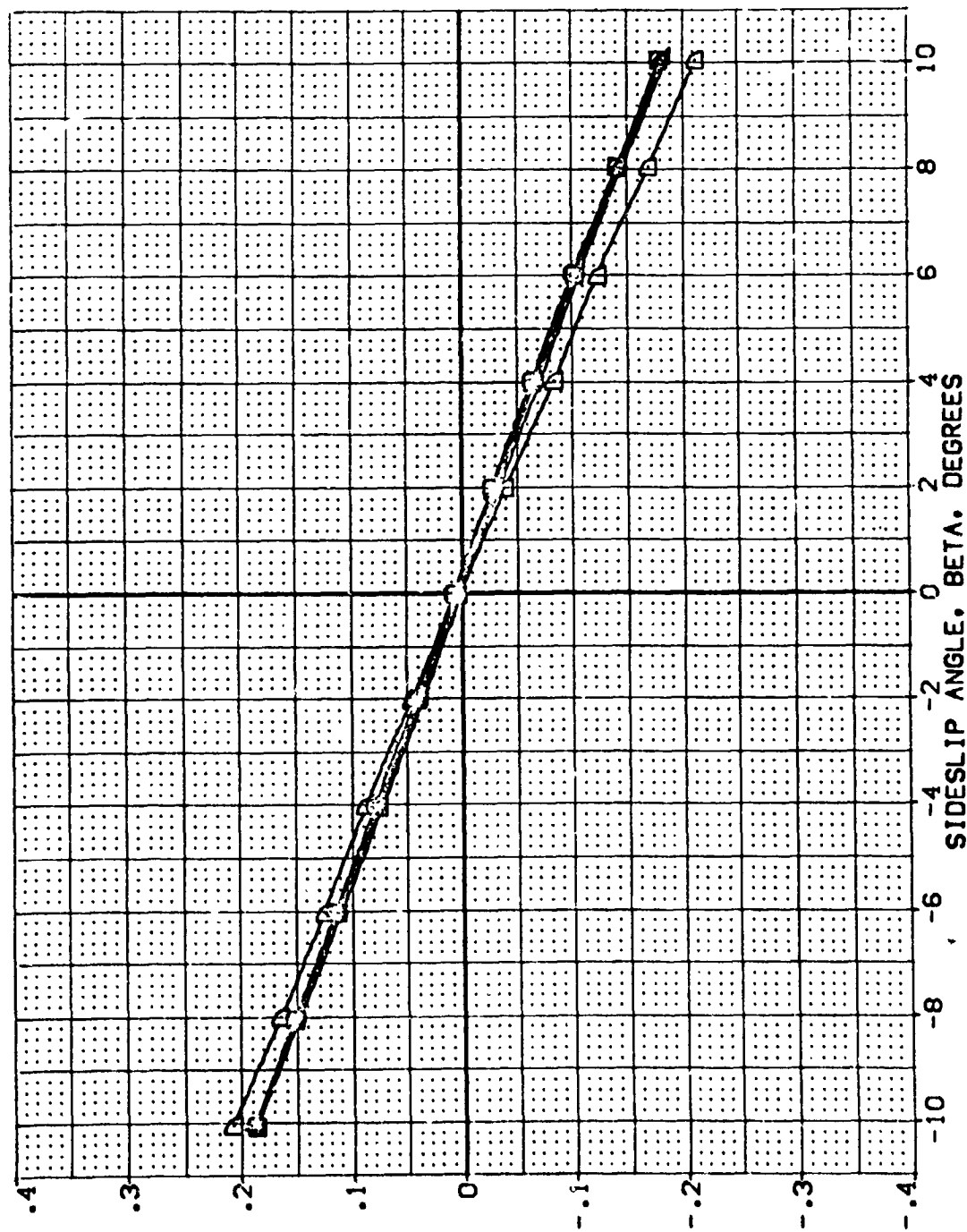


FIG 42 LAT-DIR STAB. FREE AIR GEAR OFF, 0 RUDDER BASELINE ELEVON GAP 25 FLARE

6-4

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AILRON	REFERENCE INFORMATION
[R0Z118]	0A5Z8 B26C9 M7F8 V116Z28V8P5X9	-5.000	.000	25.000	.000	SREF 4.4119 SQ.FT.
[R0Z119]	0A5Z8 B26C9 M7F8 V116Z28V8P5X9	.000	.000	25.000	.000	LREF 19.2298 INCHES
[R0Z120]	0A5Z8 B26C9 M7F8 V116Z28V8P5X9	5.000	.000	25.000	.000	BREF 37.9359 INCHES
[R0Z121]	0A5Z8 B26C9 M7F8 V116Z28V8P5X9	10.000	.000	25.000	.000	XTRP 43.5974 INCHES
[R0Z122]	0A5Z8 B26C9 M7F8 V116Z28V8P5X9	15.000	.000	25.000	.000	YTRP 15.0000 INCHES
[R0Z123]	0A5Z8 B26C9 M7F8 V116Z28V8P5X9	20.000	.000	25.000	.000	ZTRP 15.1875 INCHES
						SCALE .0405



SIDE FORCE COEFFICIENT, CY

FIG 42 LAT-DIR STAB. FREE AIR GEAR OFF, 0 RUDDER BASELINE ELEVON GAP 25 FLARE

(CDZ118)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

RUDDER  
.000

PARAMETRIC VALUES  
MACH .200  
ELEVON .000  
SPDRK 25.000

BOFLAP -12.000  
AILRON .000

REFERENCE INFORMATION  
SREF 4.4119 SO.FT.  
LREF 19.7239 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

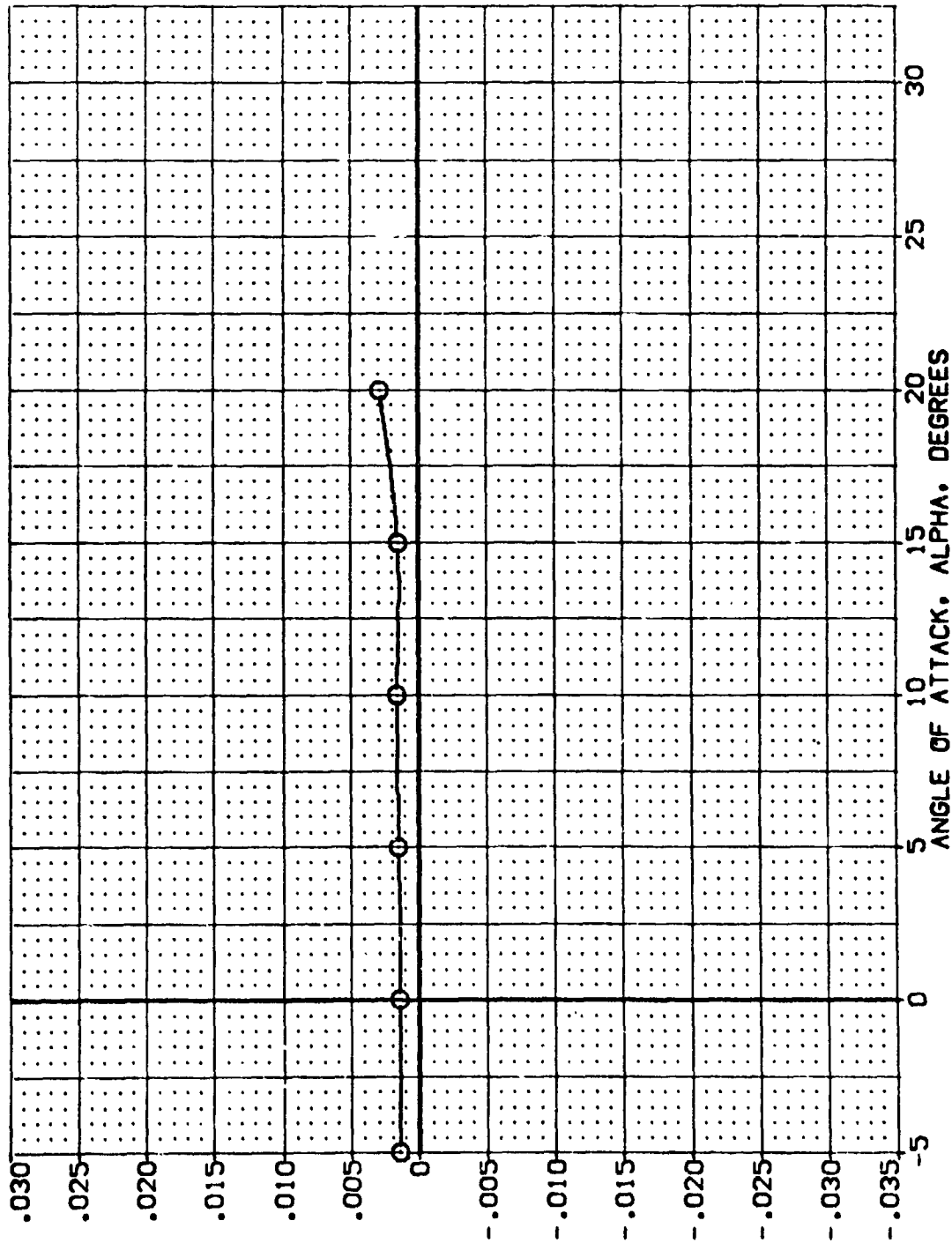


FIG 42 LAT-DIR STAB. FREE AIR GEAR OFF, 0 RUDDER BASELINE ELEVON GAP 25 FLARE



0A628 B26C9 M7F8 W116E28V8R5X9

(CDZ118)

SYMBOL  
O

RUDDER  
.000

MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.200  
.000  
25.000

EDFLAP  
AILRON  
.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4118 SQ.FT.  
LREF 19.2258 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

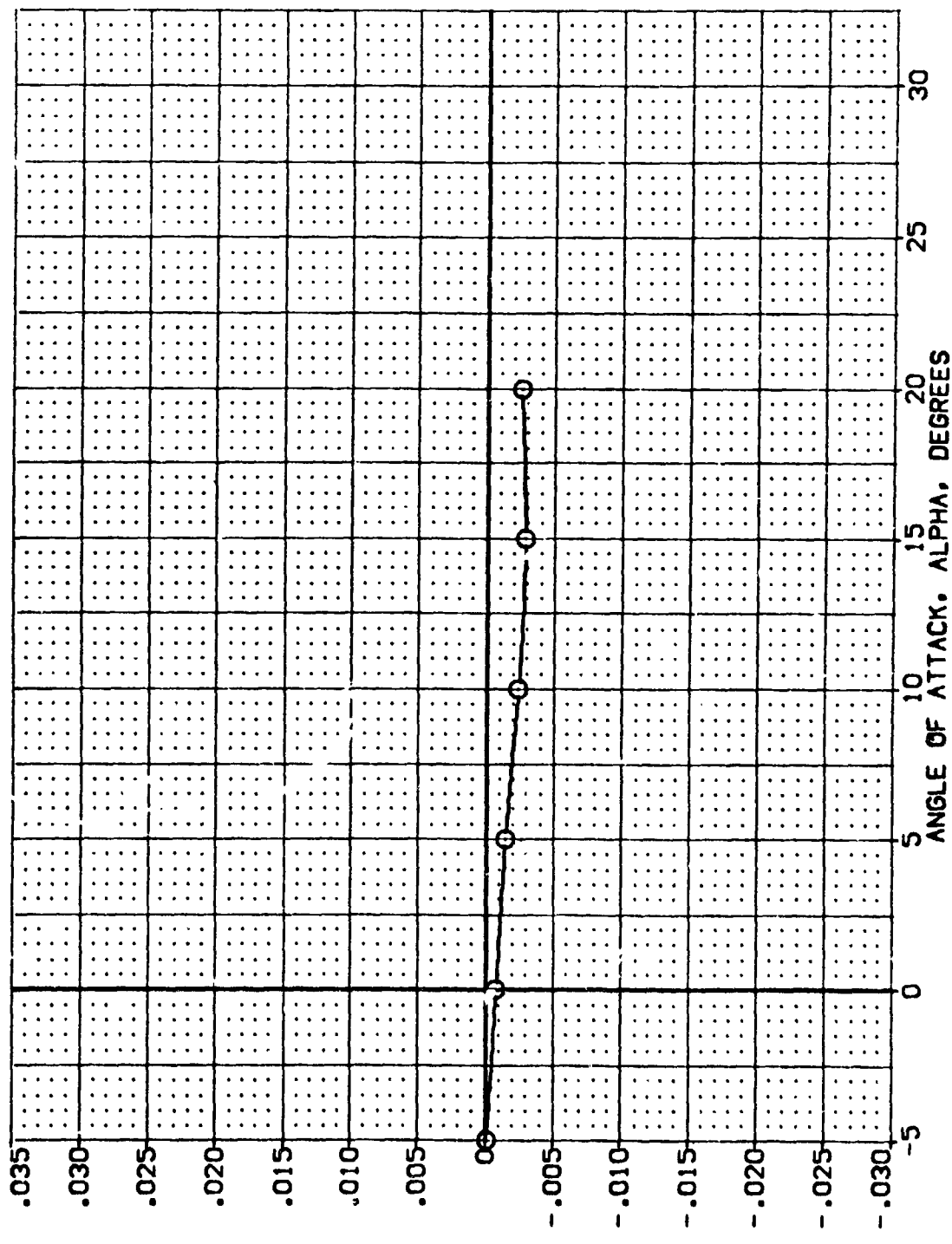


FIG 42 LAT-DIR STAB. FREE AIR GEAR OFF, 0 RUDDER BASELINE ELEVON GAP 25 FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (C0Z118)  
 RUDDER .000 MACH .200 BOFLAP -12.000  
 ELEVON .000 ATTORN .000  
 SPDRK 25.000  
 REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.7289 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5874 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1075 INCHES  
 SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

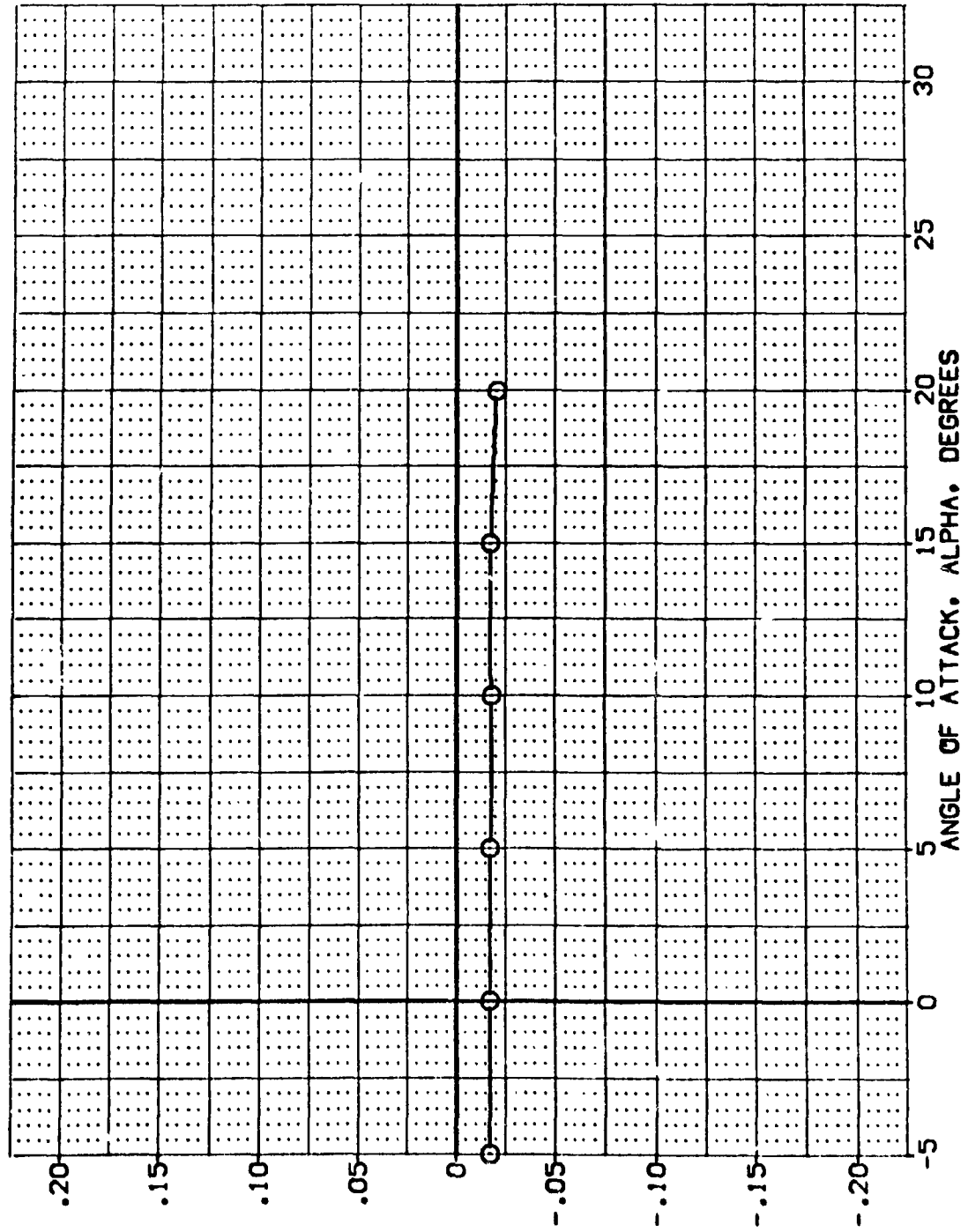


FIG 42 LAT-DIR STAB. FREE AIR GEAR OFF, 0 RUDDER BASELINE ELEVON GAP 25 FLARE



DATA SET SYMBOL: (CZ124) 8 04128 828CS M77-8 V116228V85X3  
(BDZ117) 8 04628 828CS M77-8 V116228V85X3

ELEVON SPORCK BDFLAP RUDDER  
.000 25.000 -12.000 .000  
.000 25.000 -12.000 .000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2259 INCHES  
BREF 37.9359 INCHES  
XPRP 43.5974 INCHES  
YPRP .0000 INCHES  
ZPRP 15.1875 INCHES  
SCALE .0405

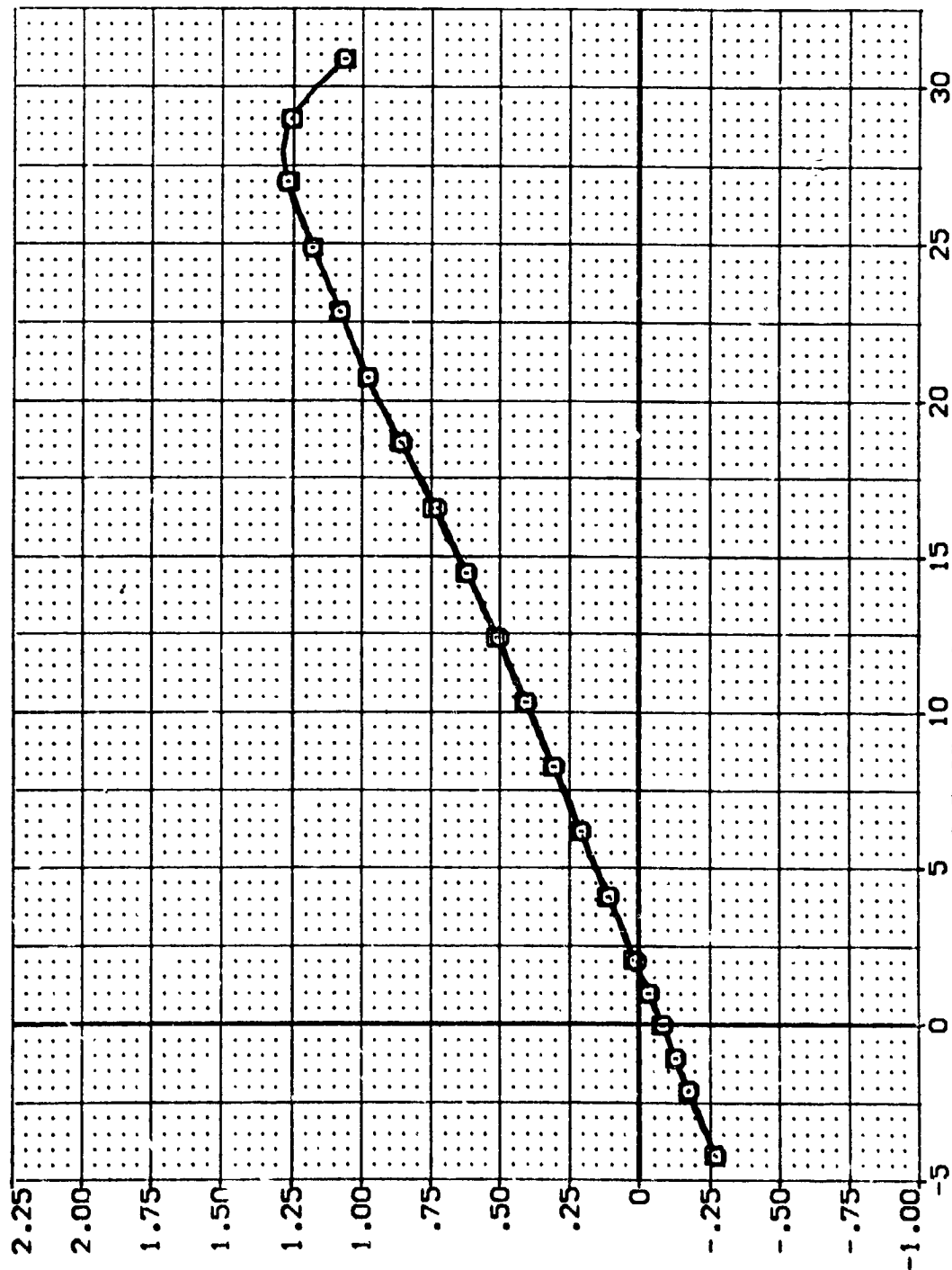


FIG 43 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = 0

(M)MACH = .20

DATA SET SYMBOL				CONFIGURATION DESCRIPTION				REFERENCE INFORMATION			
(B02124)	Q1628	B26C3	M7F8	V116E28V8S3X9	ELEVON	SPDRBK	BDFLAP	RUDDER	SREF	4.4119	50. FT.
(B02117)	Q1628	B26C3	M7F8	V116E28V8S3X9	.000	25.000	-12.000	.000	LREF	19.2299	INCHES
					.000	25.000	-12.000	.000	BREF	37.9359	INCHES
									XMRP	43.5974	INCHES
									YMRP	.0000	INCHES
									ZMRP	15.1875	INCHES
									SCALE	.0405	SCALE

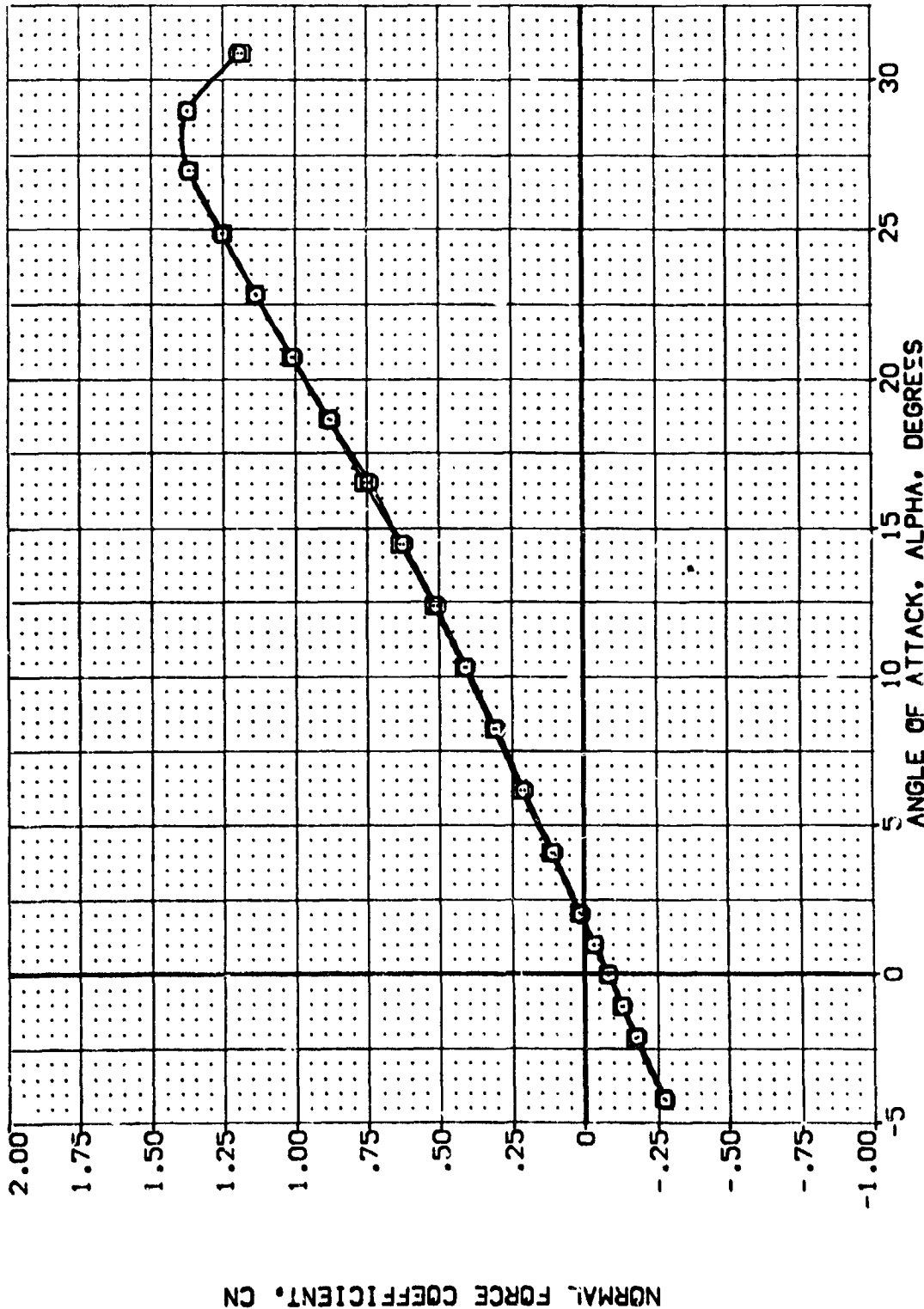


FIG 43 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = 0

MAJ MACH = .20

DATA SET SYMBOL (807124) (802117)  CONFIGURATION DESCRIPTION  
 84528 826C3 H7F8 V116E26V8538  
 84628 826C3 H7F8 V116E26V8539

ELEVON 87000K 80FLAP RUDDER  
 .000 25.000 -12.000 .000  
 .000 25.000 -12.000 .000

REFERENCE INFORMATION  
 SREF 4.4118 SO.FT. INCHES  
 LREF 19.2259 INCHES  
 BREF 37.9359 INCHES  
 XREF 43.5974 INCHES  
 YREF .0000 INCHES  
 ZREF 15.1875 INCHES  
 SCALE .0405

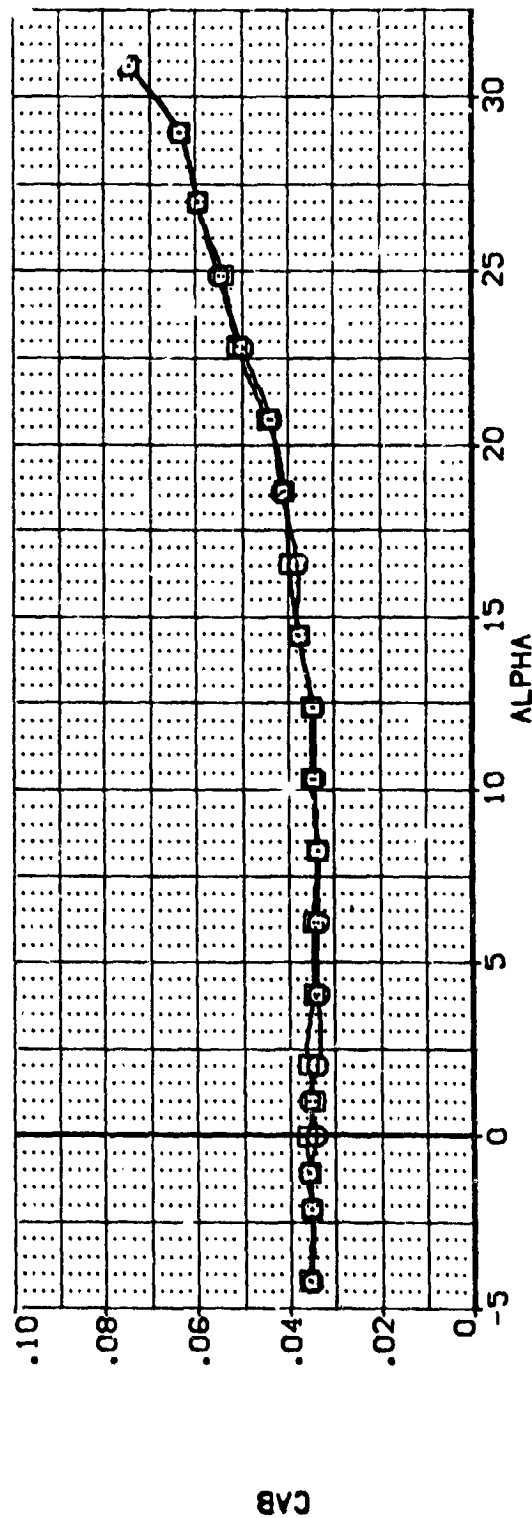
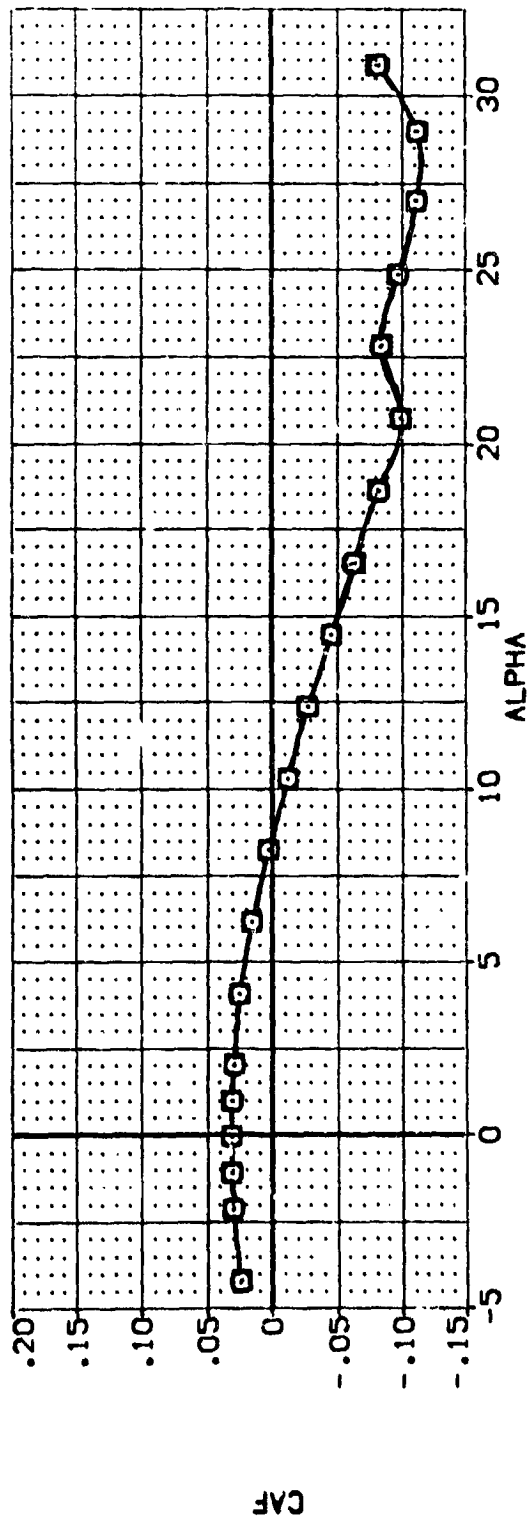


FIG 43 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BOFLAP	RUDDER	REFEREN	INFORMATION
(BDZ124)	0A628 826CS M7F8 V118E28V8PSX9	.000	25.000	-12.000	.000	SREF	4.4119 SQ.FT.
(BDZ117)	0A628 826CS M7F8 V118E28V8PSX9	.000	25.000	-12.000	.000	LREF	19.2299 INCHES
						BREF	37.9359 INCHES
						YMRP	43.5974 INCHES
						ZMRP	.0000 INCHES
						SCALE	15.1875 INCHES
							.0405

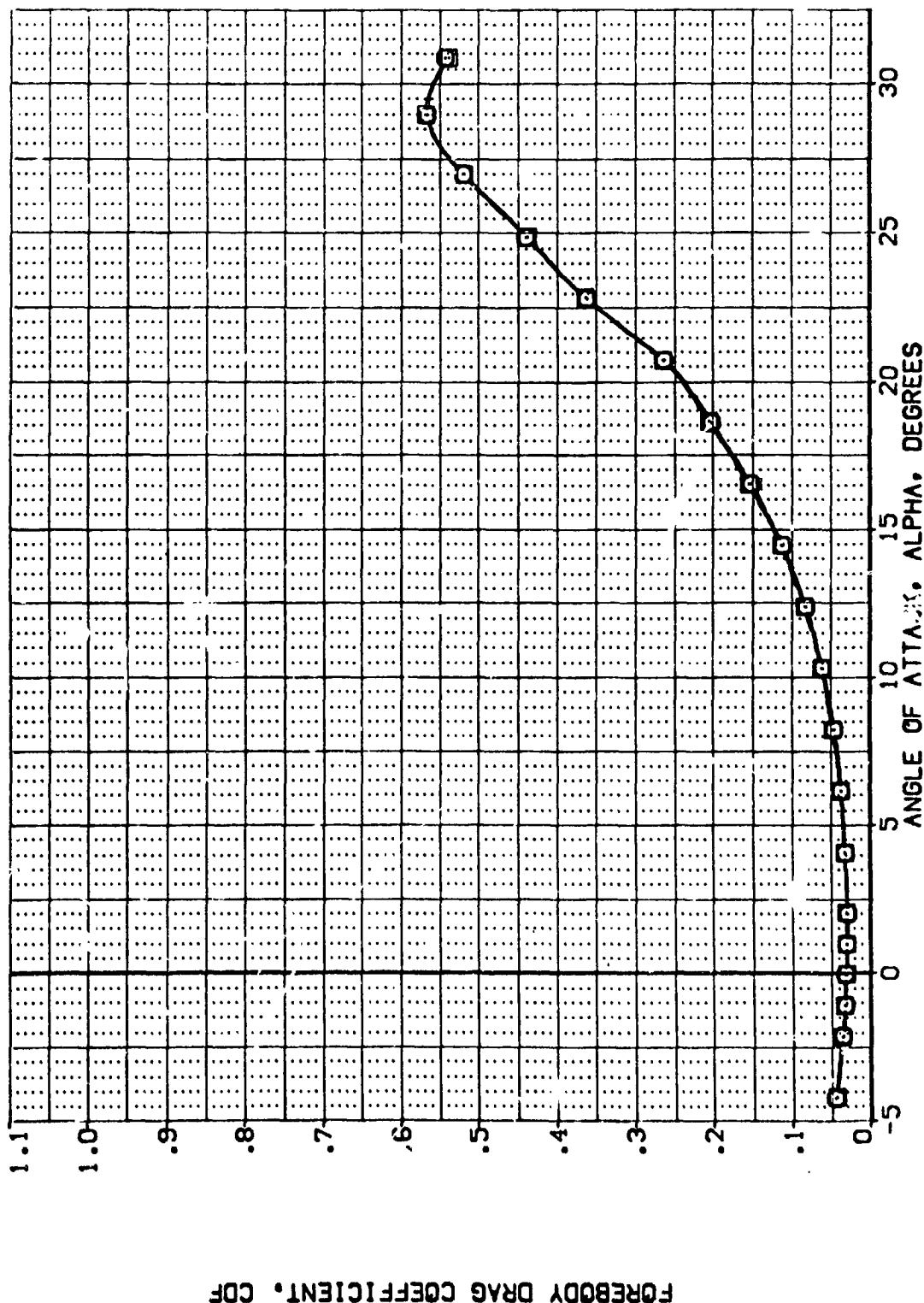


FIG 43 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = 0

MACH = 20

C-7

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 {802124} □ 04528 82629 M7F8 V11626V85X9  
 {802117} □ 04528 82629 M7F8 V11626V85X9

ELEVON SPOON BOFLAP RUDDER  
 .000 25.000 -12.000 .000  
 .000 25.000 -12.000 .000

REFERENCE INFORMATION  
 SREF 4.4119 50 FT  
 LREF 19.2298 INCHES  
 SREF 37.5358 INCHES  
 YMRP 43.5974 INCHES  
 ZMRP .0000 INCHES  
 SCALE 15.1875 INCHES  
 SCALE .0405

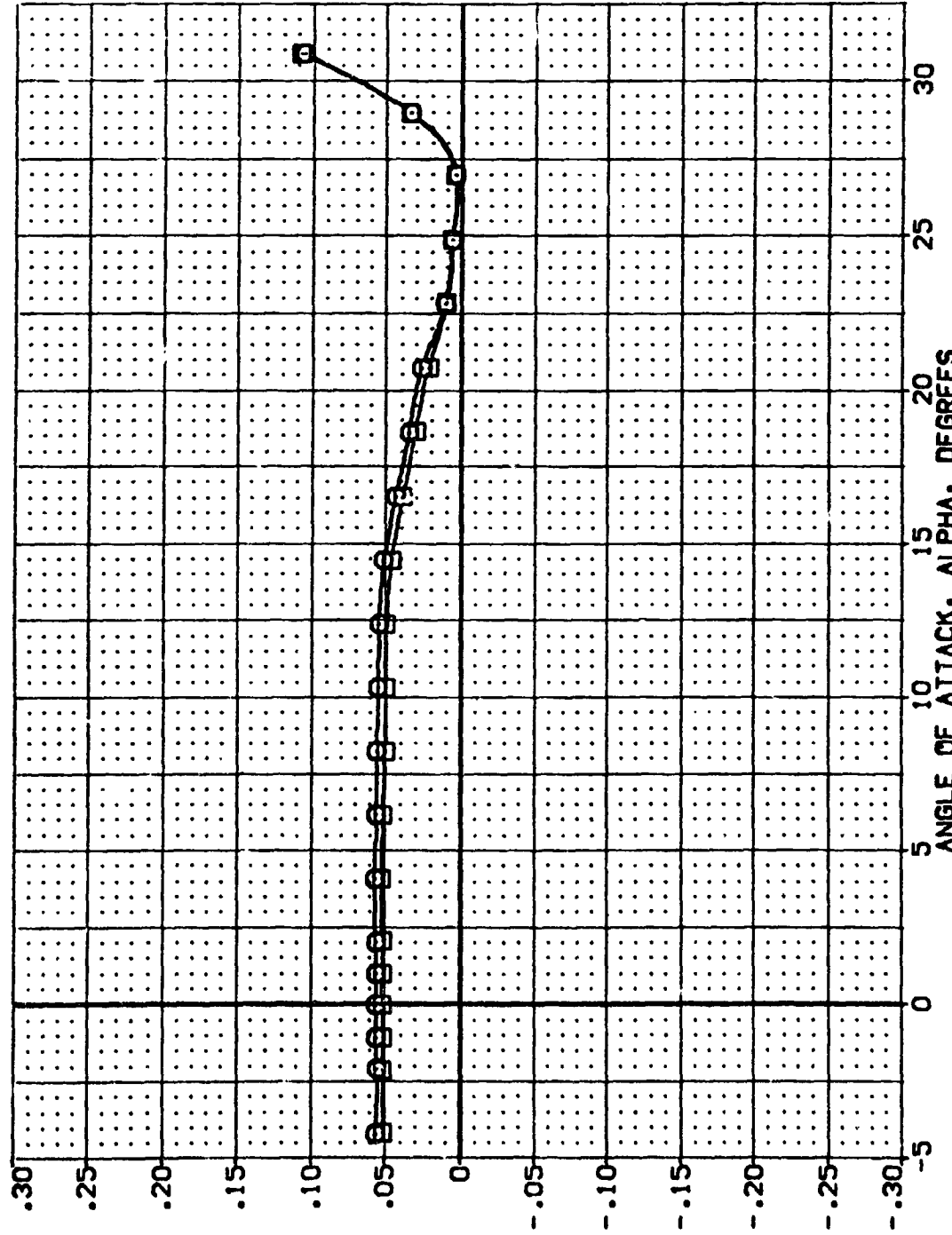


FIG 43 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = 0

CAMACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802124) □ C-52B B26C3 M78 V11E28V85X3  
 (802117) □ C-52B B26C3 M78 V11E28V85X3

ELEVON 9000K 25.000 25.000 25.000 25.000  
 .000 .000 .000 .000  
 RUDDER 12.000 12.000 12.000 12.000  
 .000 .000 .000 .000  
 REFERENCE INFORMATION  
 SREF 4.4119 50.571  
 LREF 19.2239 100.142  
 BREF 37.9359 200.284  
 XREF 43.5674 300.426  
 YREF .0000 0.000  
 ZREF 15.1873 15.187  
 SCALE .0403 0.403

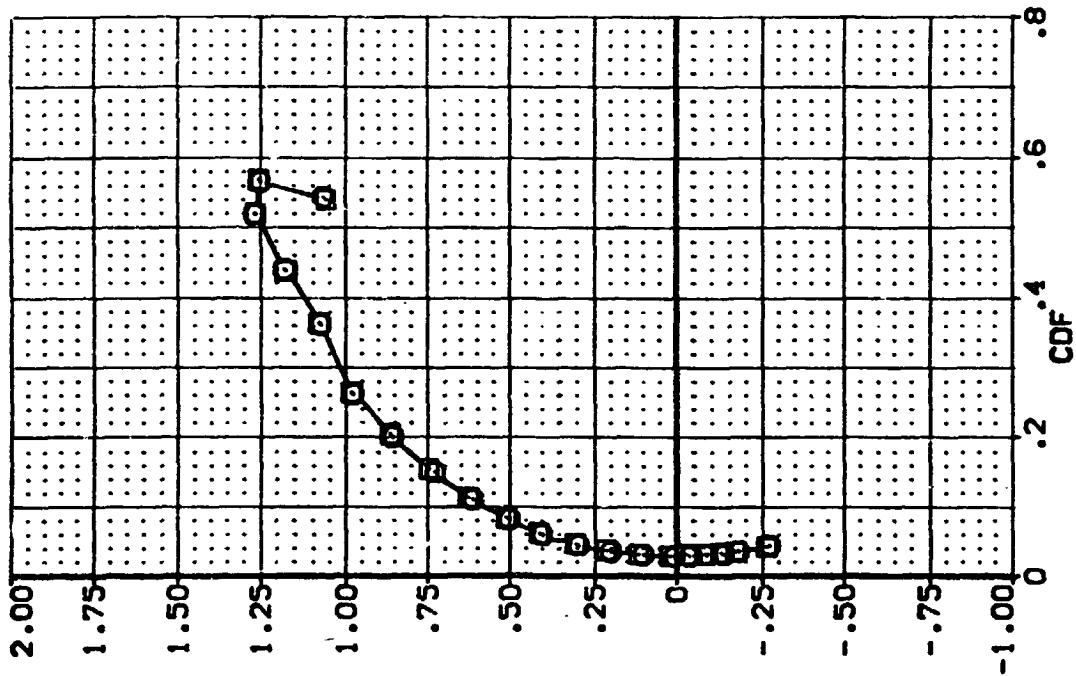
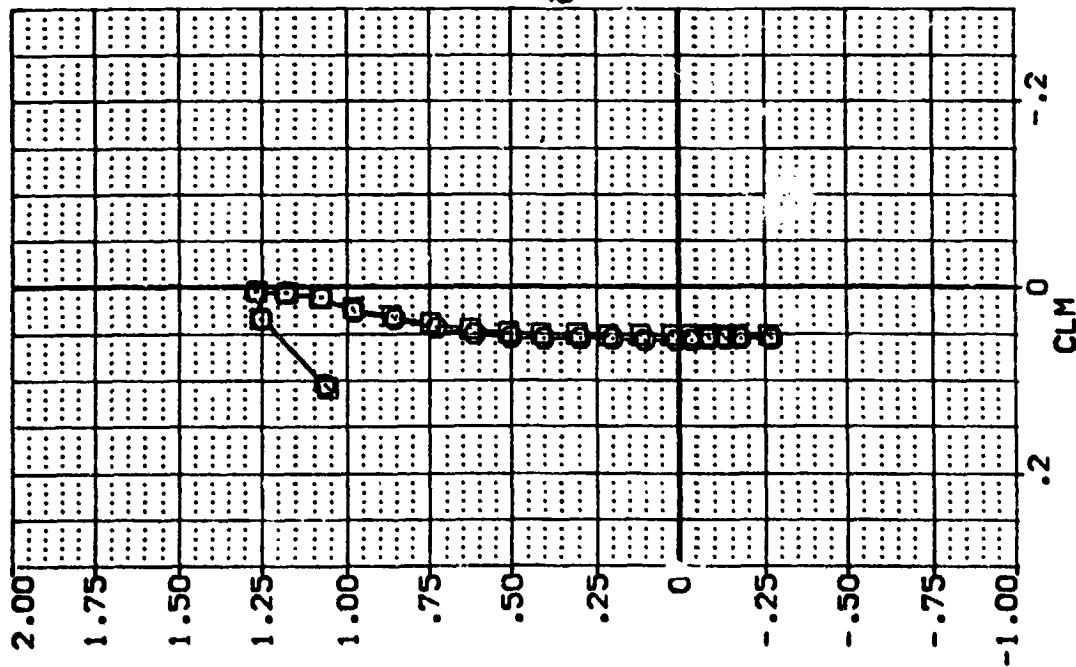


FIG 43 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = 0

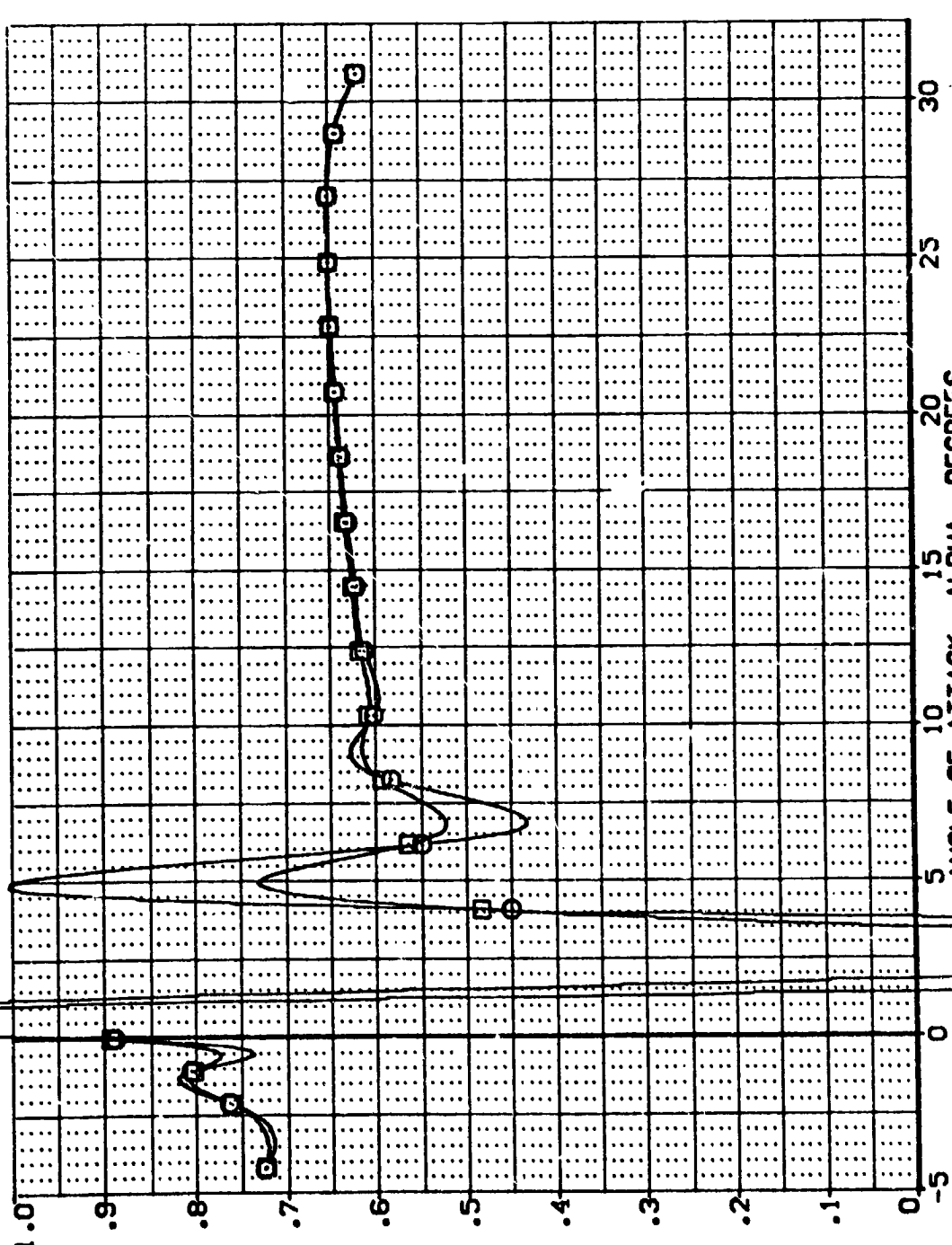
CAJMACH = .20



DATA SET SYMBO. CONFIGURATION DESCRIPTION  
(B02124) 0A528 B0623 MFB V116228/BR5X3  
(B02117) 0A528 B0623 MFB V116228/BR5X3

ELEVON WPOBOK BOFLAP RUDDER  
.000 25.000 -12.000 .000  
.000 25.000 -12.000 .000

REFERENCE INFORMATION  
REF 4.4119 80.FT.  
LINEF 19.2259 INCHES  
REF 37.5359 INCHES  
XREF 43.5974 INCHES  
YREF .0000 INCHES  
ZREF 15.1875 INCHES  
SCALE .0405



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FIG 43 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = 0

(A)MACH = .20

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		SPORK		BOFLAP		RUDDER		REFERENCE INFORMATION	
(BZ(24))	04520	BZC3	M7F8	V116E28V80X3	.000	25.000	-12.000	.000	REF	4.4119	NO-ES	NO-ES	NO-ES
(BZ(17))	04528	BZC3	M7F8	V116E28V80X3	.000	25.000	-12.000	.000	LREF	19.2288	NO-ES	NO-ES	NO-ES
									BREF	37.9359	NO-ES	NO-ES	NO-ES
									XTRP	43.5874	NO-ES	NO-ES	NO-ES
									YTRP	.0000	NO-ES	NO-ES	NO-ES
									ZTRP	15.1875	NO-ES	NO-ES	NO-ES
									SCALE	.0405	NO-ES	NO-ES	NO-ES

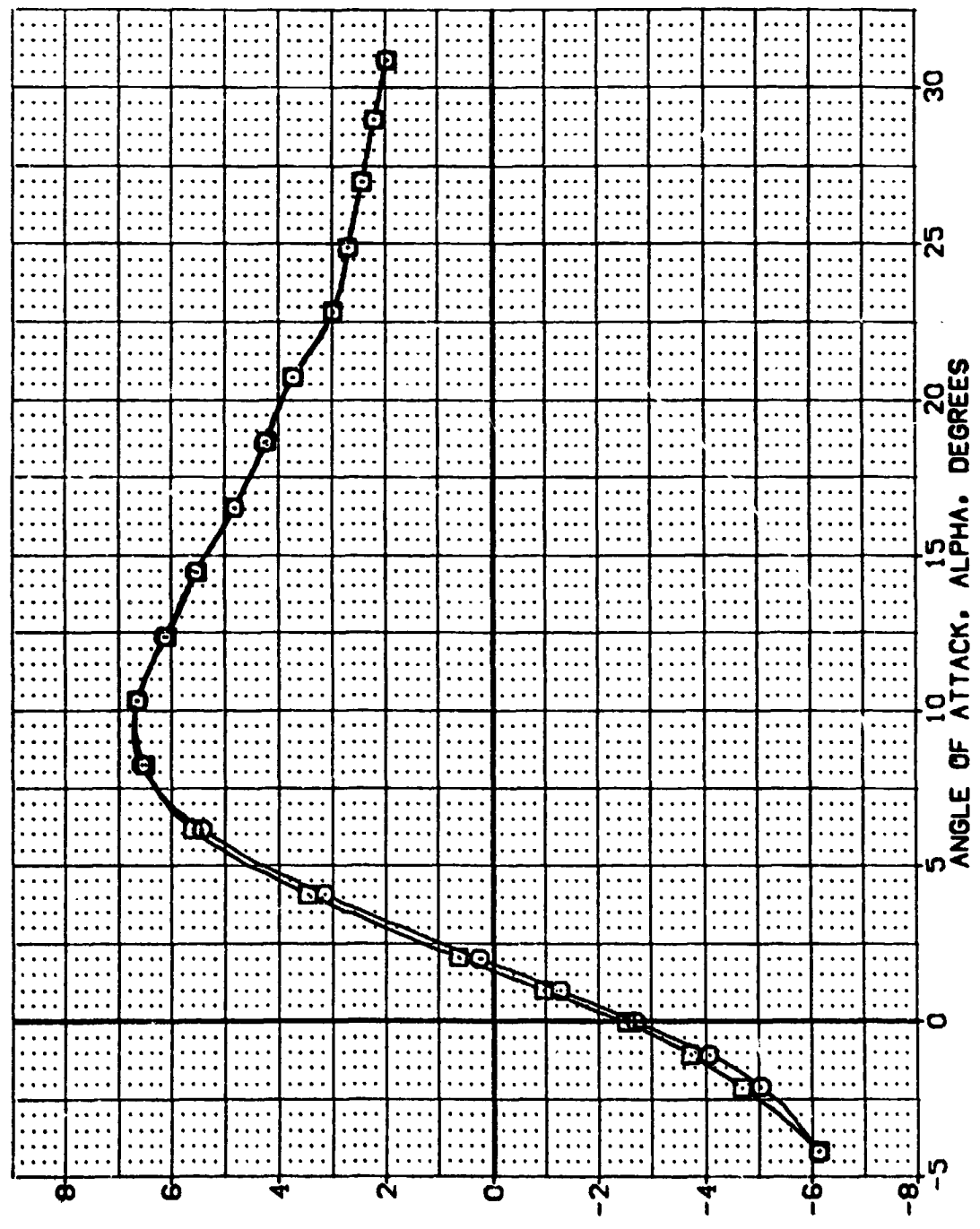


FIG 43 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = 0

MACH = .20



DATA SET SYMBOL: 04528 826C3 M7F8 V11E26V85X8  
 (80Z1115) 04628 826C3 M7F8 V11E26V85X8

ELEVON: 5.000 5.000 25.000 25.000 -12.000 -12.000  
 SPDRK: 25.000 25.000  
 BD-LAP: .000 .000  
 RUDDER: .000 .000

REFERENCE INFORMATION:  
 SREF: 4.4119 SQ.FT.  
 LREF: 19.2739 INCHES  
 BREF: 37.5358 INCHES  
 XMRP: 43.5574 INCHES  
 YMRP: .0000 INCHES  
 ZMRP: 15.1875 INCHES  
 SCALE: .0405

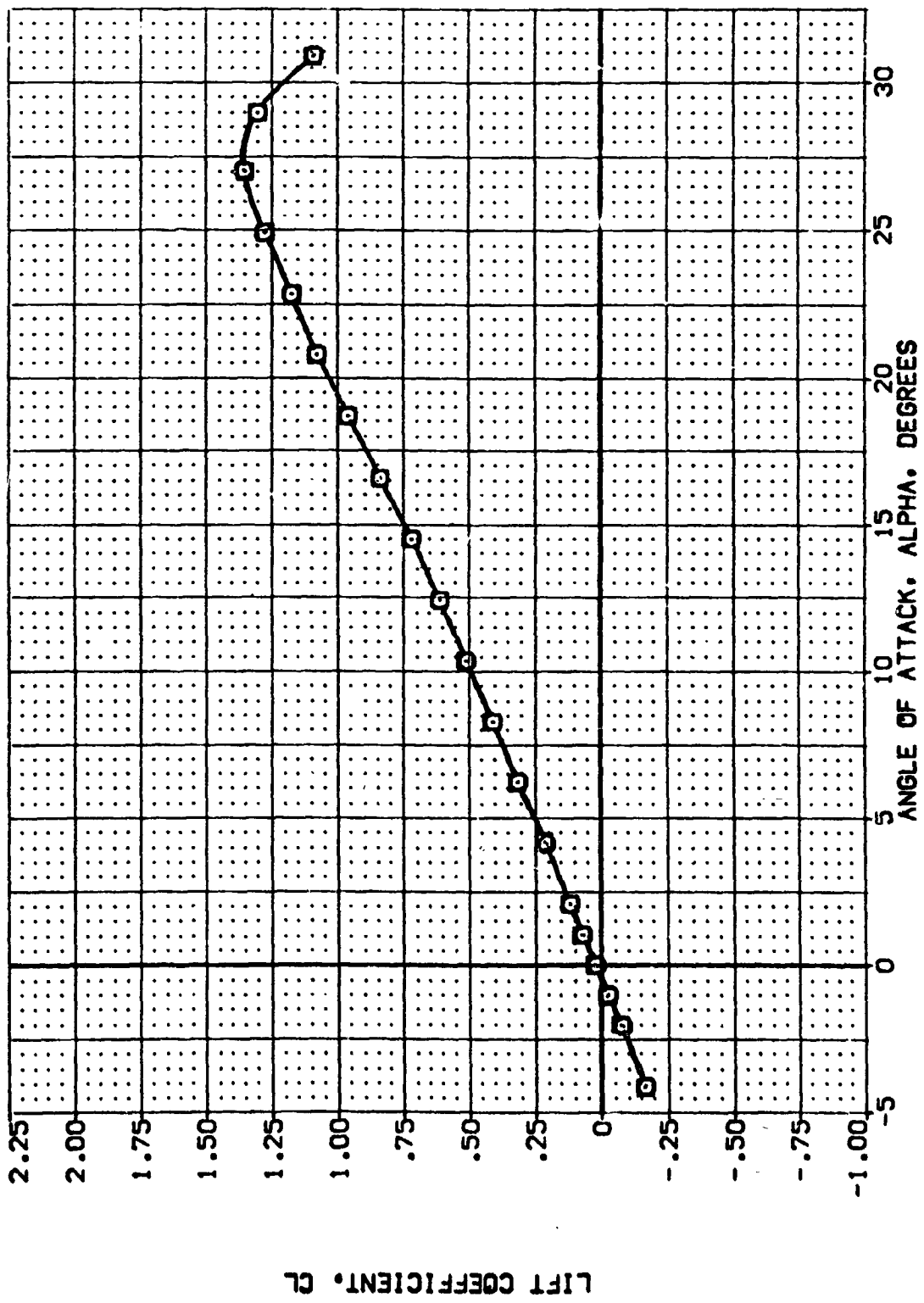


FIG 44 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +5

(A)MACH = .20

DATA SET SYMBOL				CONFIGURATION DESCRIPTION				REFERENCE INFORMATION			
(B02116)	□	04628	B26C9	M7F8	V116235	393549		BREF	4.4119	90.FT.	
(B02115)	□	04628	B26C9	M7F8	V116236	393549		LREF	19.2259	INCHES	
								BREF	37.9359	INCHES	
								XTRP	43.5974	INCHES	
								YTRP	15.0000	INCHES	
								ZTRP	15.1875	INCHES	
								SCALE	.0405	SCALE	

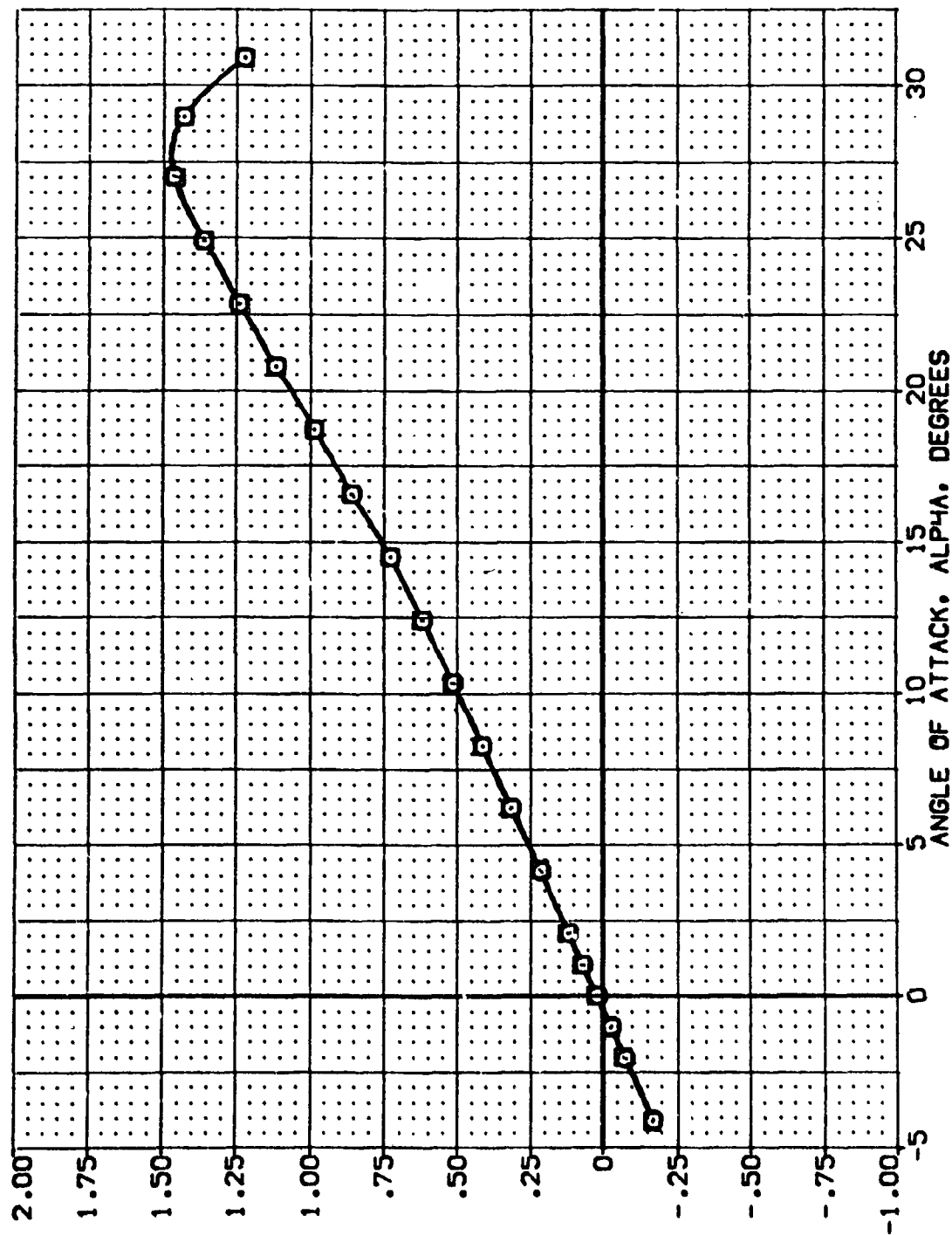


FIG 44 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +5

CLAMACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02116) 0A52B 826C3 M7F8 V116E28/826C3  
 (B02115) 0A52B 826C3 M7F8 V116E28/826C3

ELEVON 5.000 5.000 25.000 25.000 -12.000 -12.000  
 SPDRK 25.000 25.000 -12.000 -12.000  
 REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2259 INCHES  
 BREF 37.5359 INCHES  
 XREF 43.5374 INCHES  
 YREF 15.1873 INCHES  
 ZREF 15.1873 INCHES  
 SCALE .0405

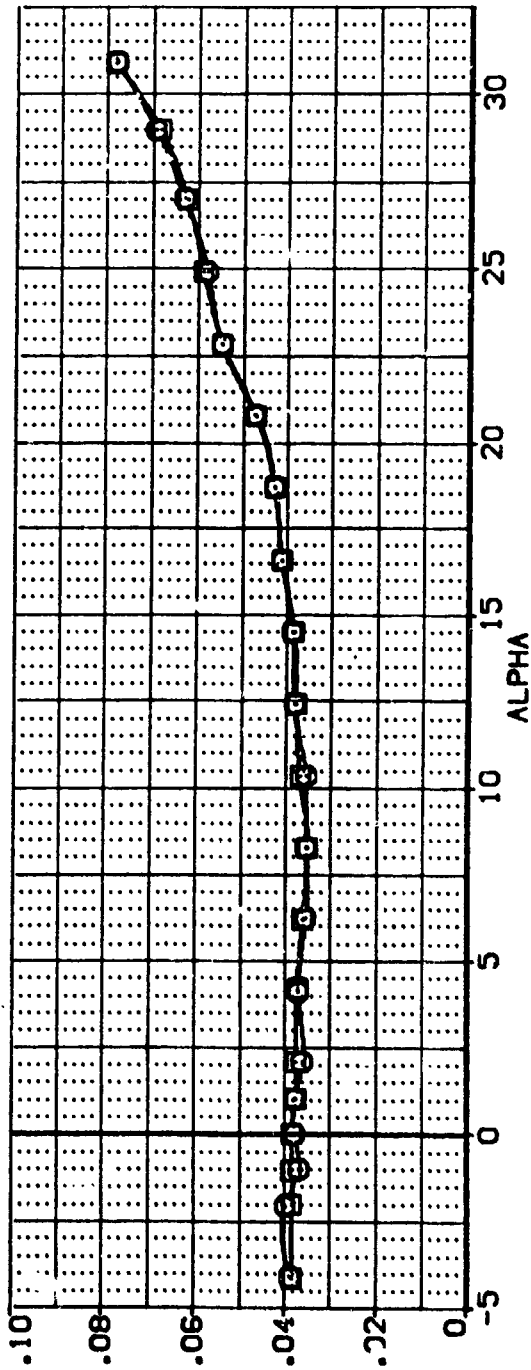
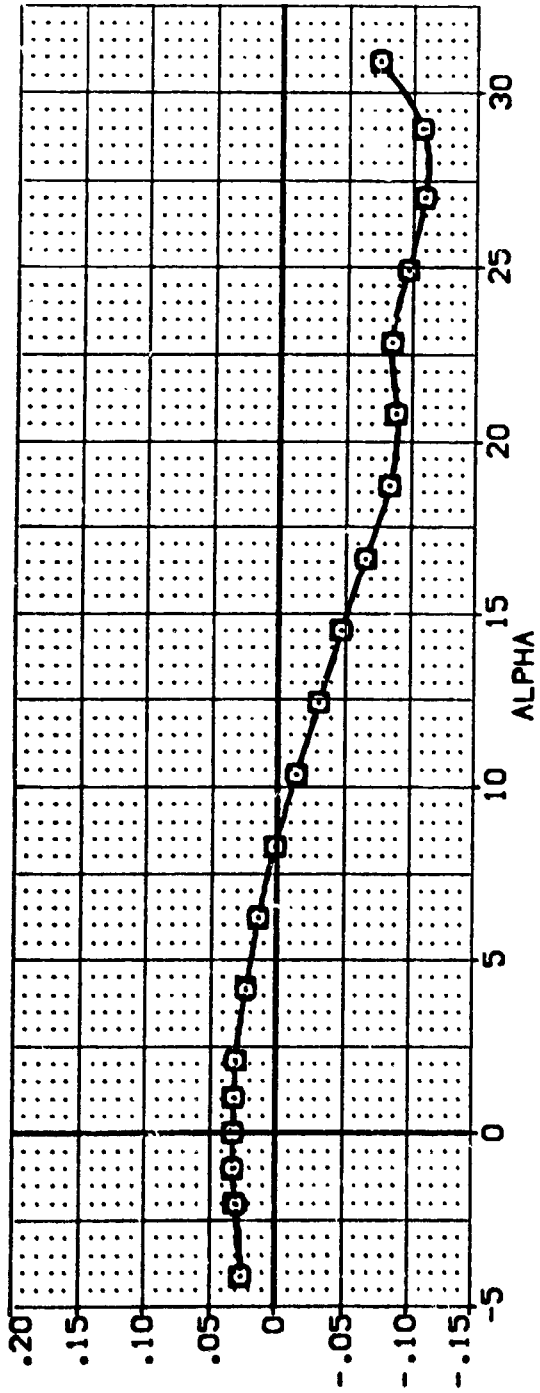


FIG 44 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +5  
 (A)MACH = .20

DATA SET SYMBOL: 04628 B26C9 M7F8 V116236V85X9  
 (B07115) 04628 B26C9 M7F8 V116236V85X9

REFERENCE INFORMATION:  
 SREF 4.4119 50.0 FT  
 LREF 19.2299 INCHES  
 BREF 37.5359 INCHES  
 XPRP 43.5974 INCHES  
 YPRP 15.1875 INCHES  
 ZPRP 0.0403 INCHES  
 SCALE

ELEVON 5.000 RUDDER 0.000  
 SPORNK 25.000 BOFLAP -12.000

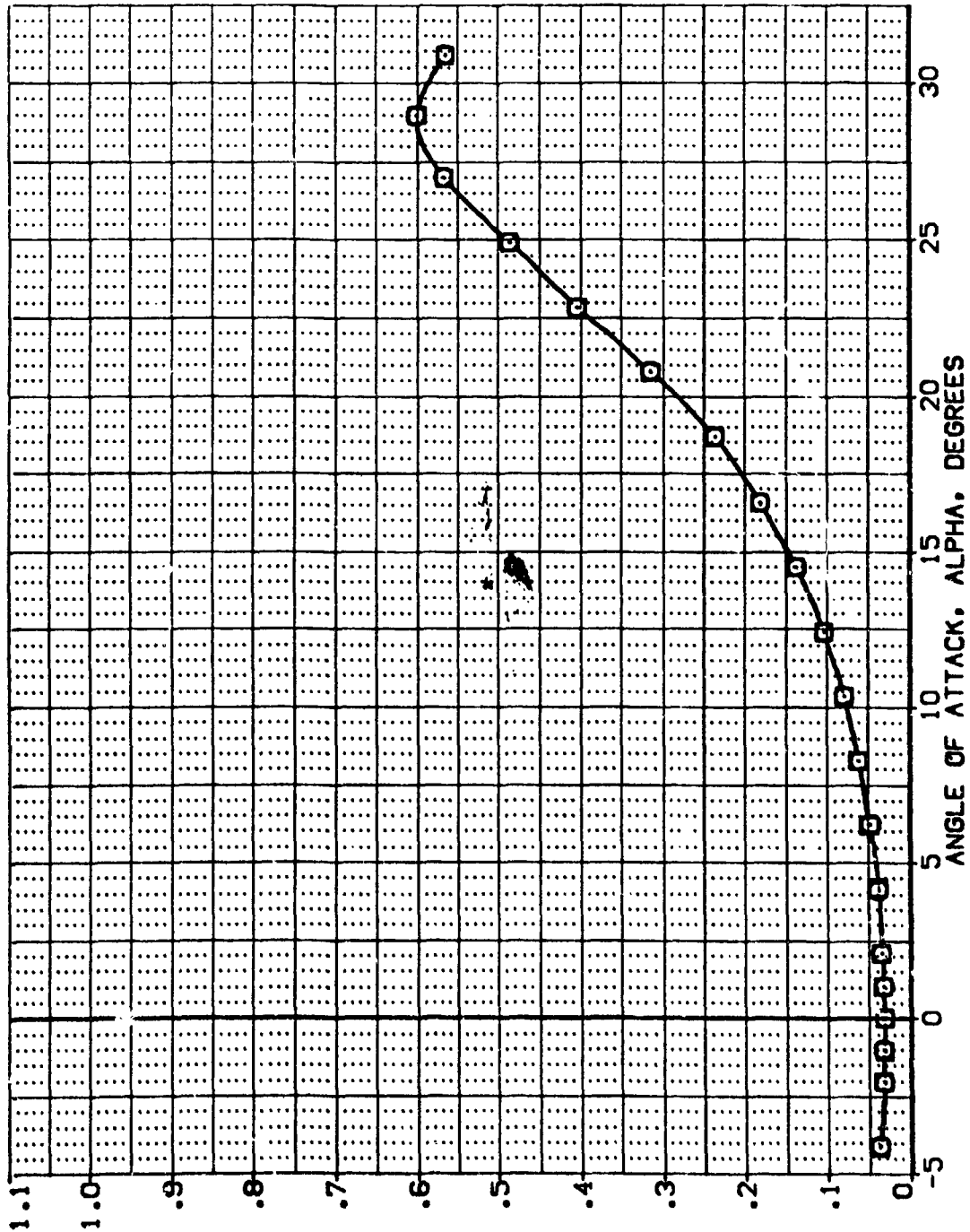


FIG 44 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +5

(A)MACH = .20

DATA SET SYMBOL				CONFIGURATION DESCRIPTION				ELEVON				SPORX				BOFLAP				FLUDER				REFERENCE INFORMATION			
{80Z115}				04528 B26C3 M7F8 V116E26V85C3				5.000				25.000				-12.000				.000				SREF 4.4119 SQ.FT.			
{80Z115}				04528 B26C3 M7F8 V116E26V85C3				5.000				25.000				-12.000				.000				LREF 19.2259 INCHES			
																								PREF 37.9359 INCHES			
																								XTRP 43.5974 INCHES			
																								YTRP .0000 INCHES			
																								ZTRP 15.1875 INCHES			
																								SCALE .0405			

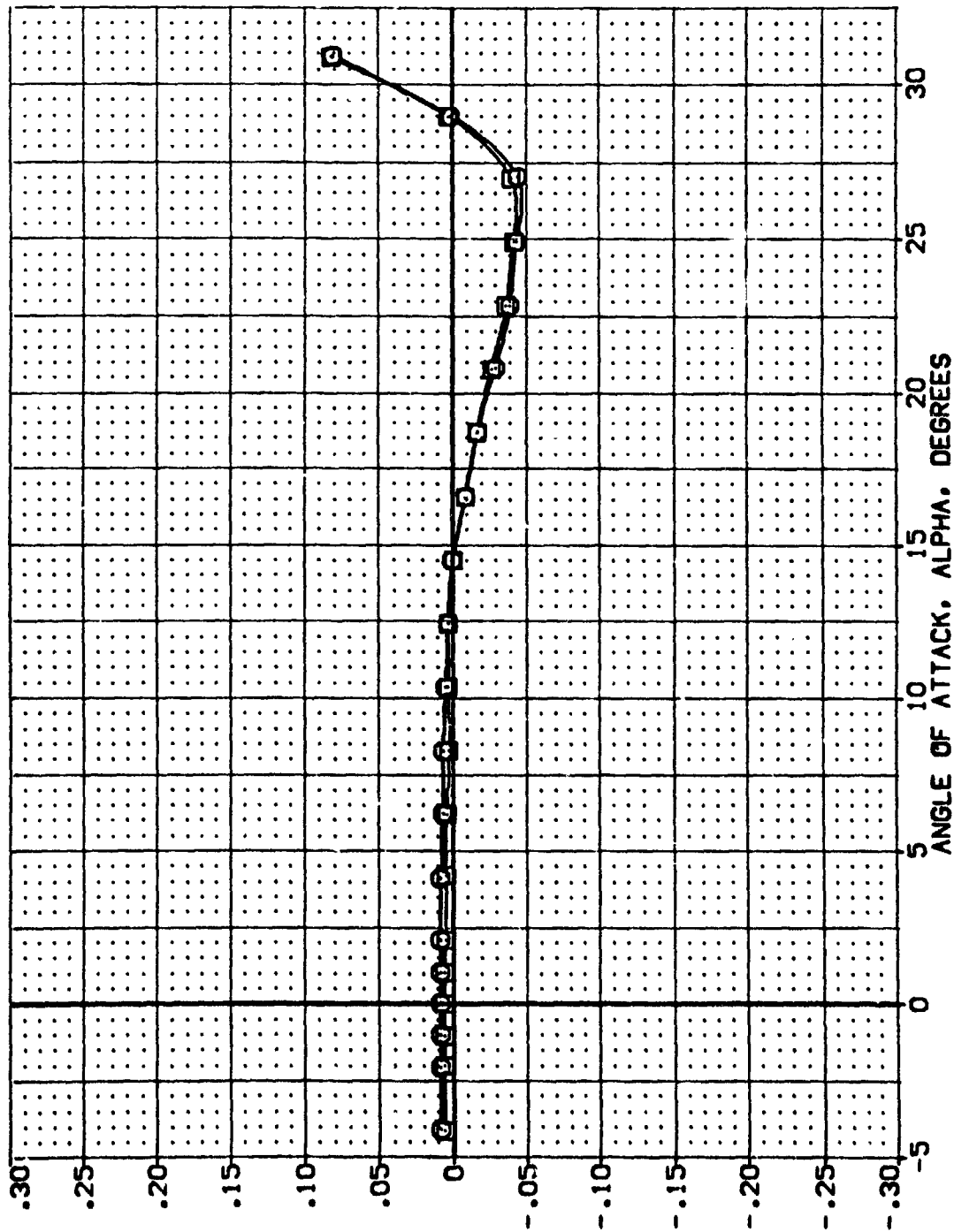


FIG 44 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +5

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (B02116) 8 01528 B0203 1778 V118226V83X3  
 (B02115) 8 01628 B0203 1778 V118226V83X3

ELEVON SPDRN BDFLAP RUDDER REFERENCE INFORMATION  
 5.000 25.000 -12.000 .000 SREF 4.4119 50.FT.  
 5.000 25.000 -12.000 .000 LREF 19.2299 INCHES  
 XTRP 43.5974 INCHES  
 YTRP .0000 INCHES  
 ZTRP 15.1875 INCHES  
 SCALE .0405 SCALE

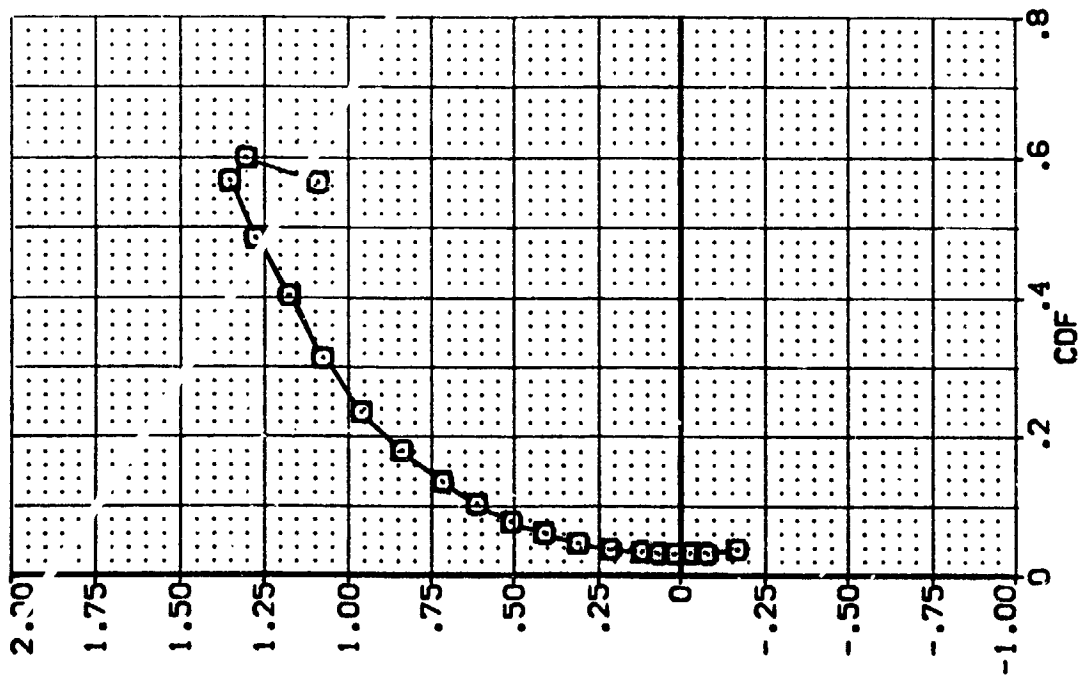
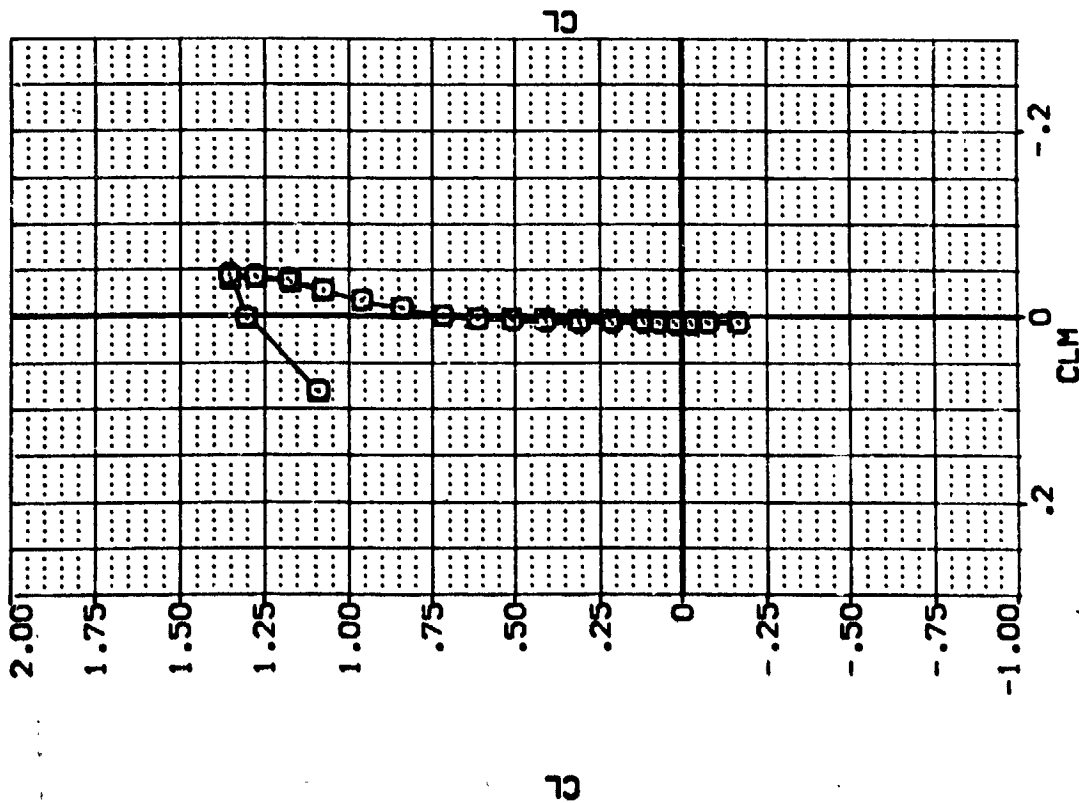


FIG 44 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +5

MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDGRK	BDLAP	RUDDER	REFERENCE INFORMATION
(BDZ116)	QAC28 B26C3 M7F8 V11E28V85X9	5.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(BDZ115)	QAC28 B26C3 M7F8 V11E28V85X9	5.000	25.000	-12.000	.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405

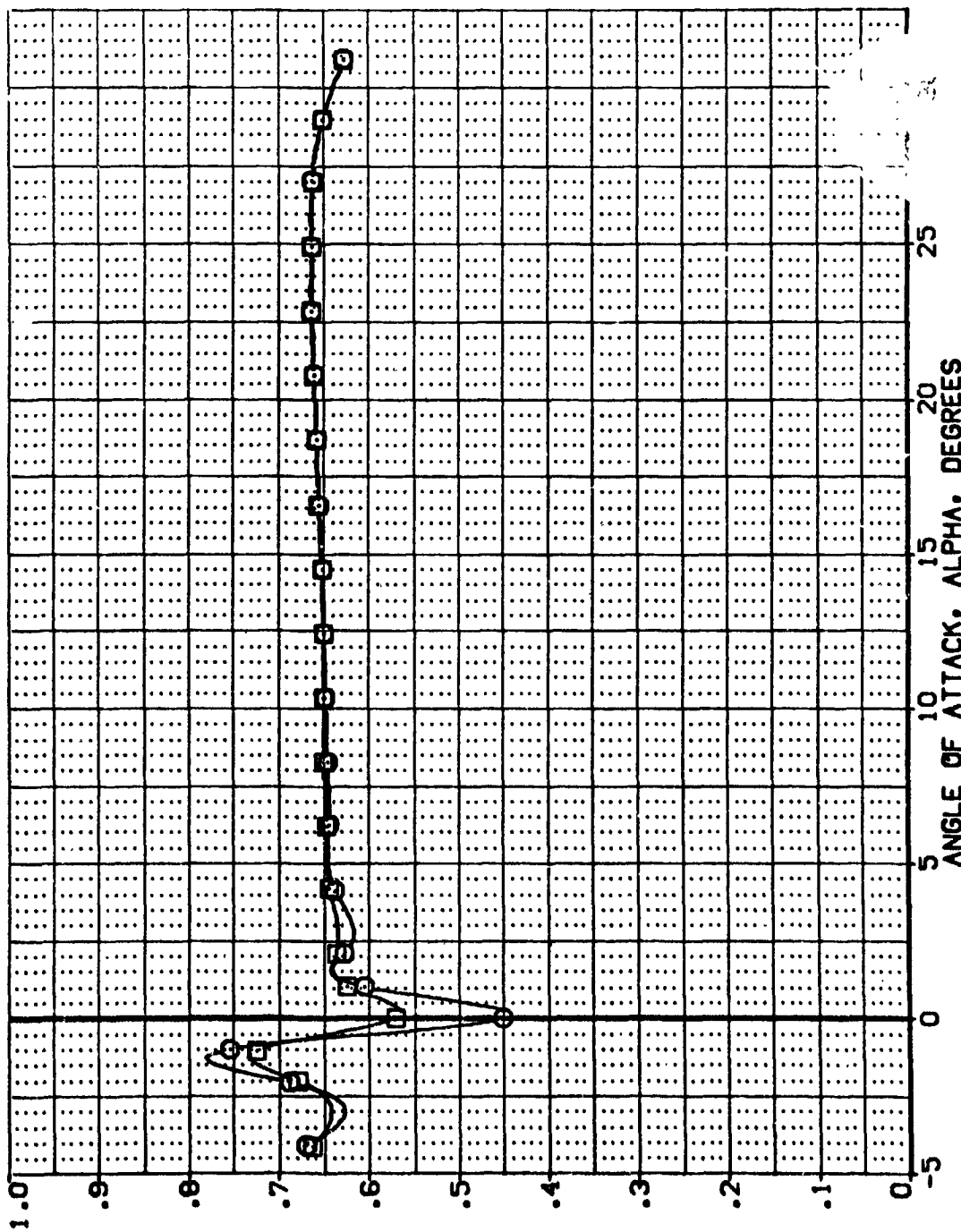


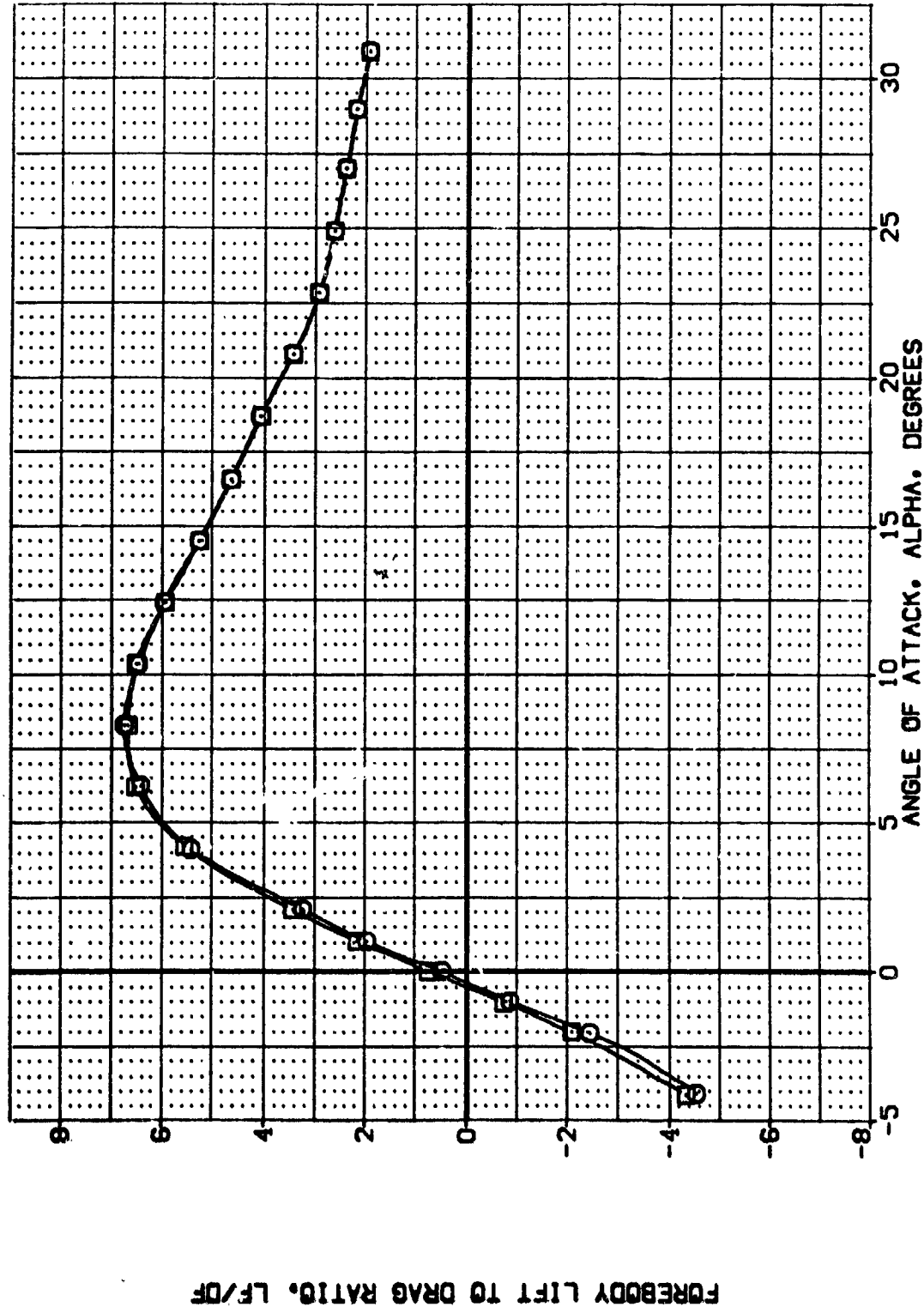
FIG 44 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +5

(A)MACH = .20

{BDZ116}	0	0A62B	B26C9	M7F0	V116E28V8P5C9
{BDZ115}	0	0A62B	B26C9	M7F0	V116E28V8P5C9

ELEVATE	5,000	5,000	5,000
SPIDER	25,000	25,000	25,000
BOFLAP	-12,000	-12,000	-12,000
FLODER	.000	.000	.000

REFERENCE INFORMATION	
SREF	4.4119 SO.FT.
LREF	19.2299 INCHES
BREF	37.9359 INCHES
XPRP	43.5874 INCHES
YPRP	.0000 INCHES
ZPRP	15.1875 INCHES
SCALE	.0405 SALE



**FIG 44 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +5**

$$\gamma_{A)MACH} = .20$$



DATA SET SYMBOL: 04528 02503 M7.8 V1162808503  
 04528 02503 M7.8 V1162808503

ELEVON SPOON BDFLAP RUDDER  
 15.000 25.000 -12.000 .000  
 15.000 25.000 -12.000 .000

REFERENCE INFORMATION  
 REF 4.4118 90.00  
 LREF 19.2278 INCHES  
 BREF 37.5759 INCHES  
 XREF 43.5774 INCHES  
 YREF .0000 INCHES  
 ZREF 15.1875 INCHES  
 SCALE .0405

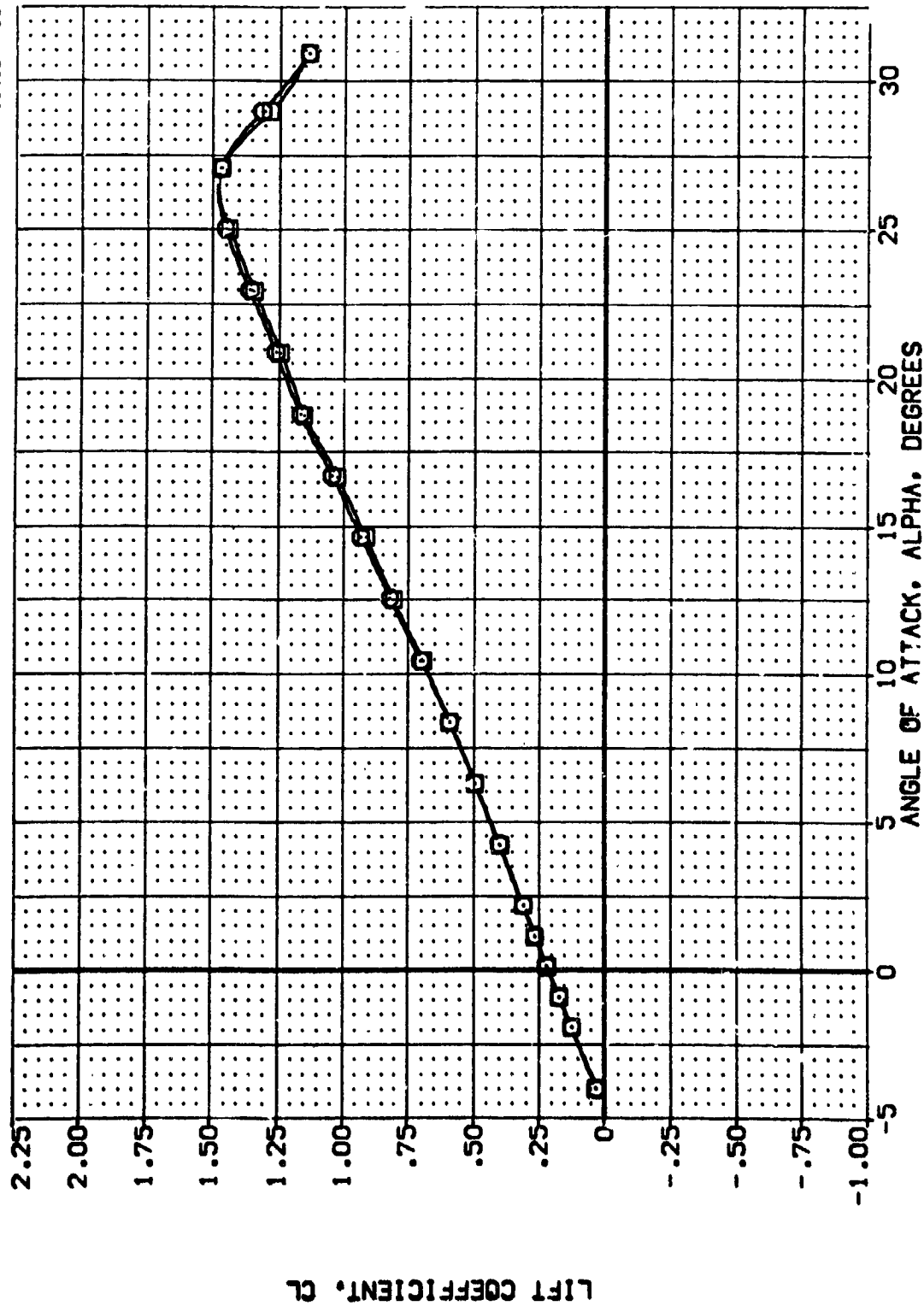
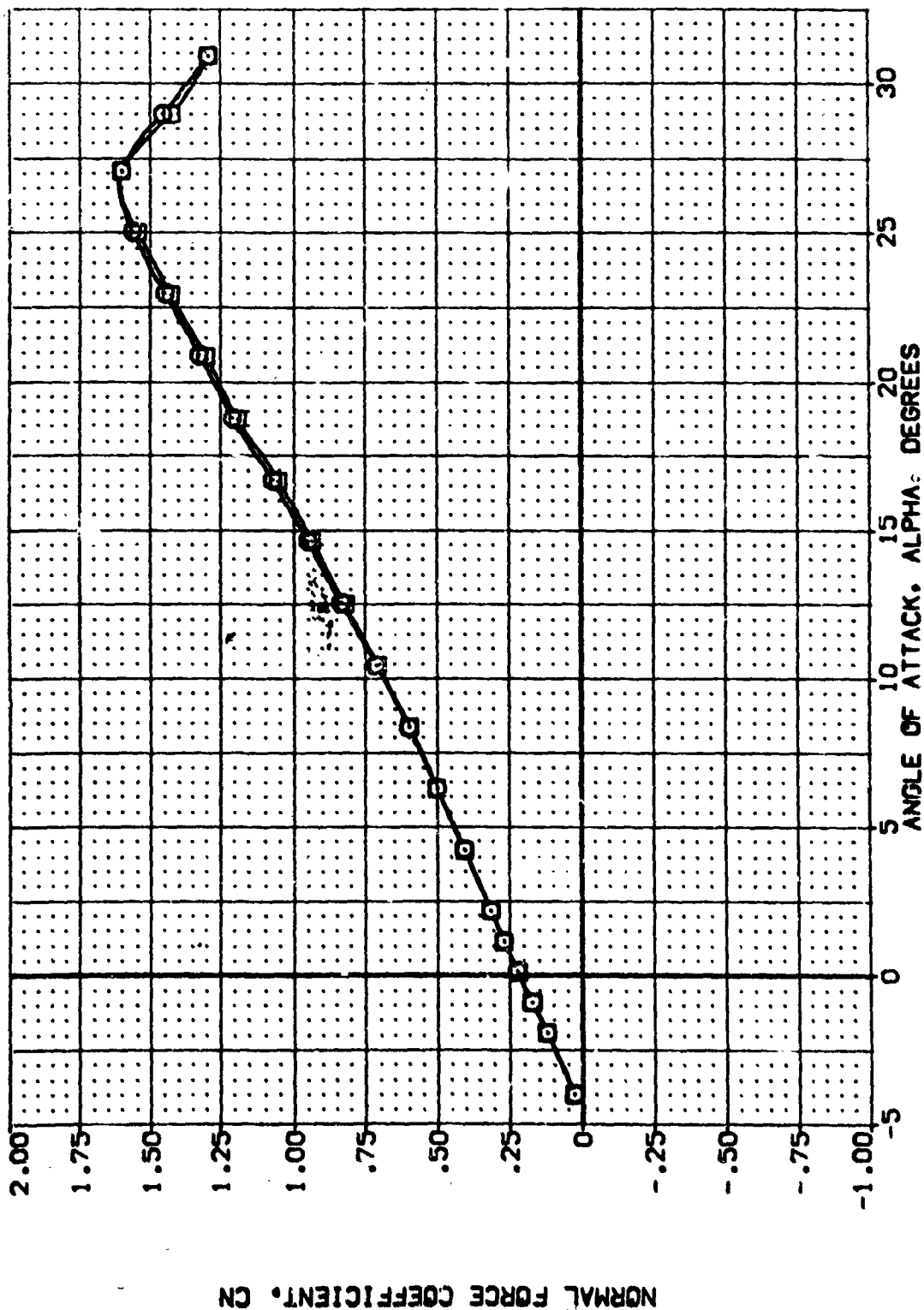


FIG 45 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +15

(A)MACH = .20

ELEVATION	SPROWN	W/FLAP	BLUDDER	REFERENCE INFORMATION	50. FT.
15.000	23.000	-12.000	.000	W/FL	NOES
15.000	25.000	-12.000	.000	U/FL	NOES
				B/FL	NOES
				X/PP	NOES
				Y/PP	NOES
				Z/PP	NOES
				SCALE	SCALE
					15.1875
					.0405
					43.5871
					37.9354
					19.2259
					4.1119



**FIG 45 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +15**

$$\text{CASMACH} = .20$$

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		SPDRK		BFLAP		ALDGR		REFERENCE INFORMATION	
(802113)	802113	802113	802113	15.000	25.000	25.000	-12.000	0.000	0.000	0.000	0.000	9REF	4.4119
(802112)	802112	802112	802112	15.000	25.000	25.000	-12.000	0.000	0.000	0.000	0.000	LINEF	19.2288
												9REF	37.9359
												XTRP	43.5974
												YTRP	0.0000
												ZTRP	15.1875
												SCALE	0.0405

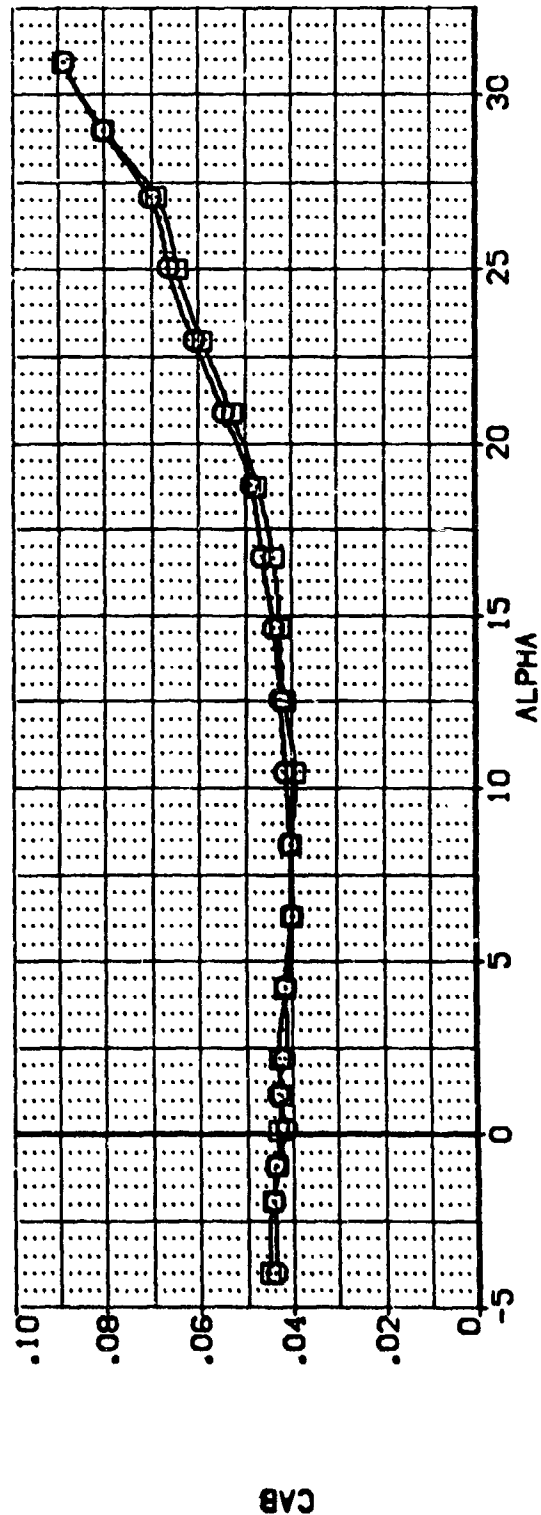
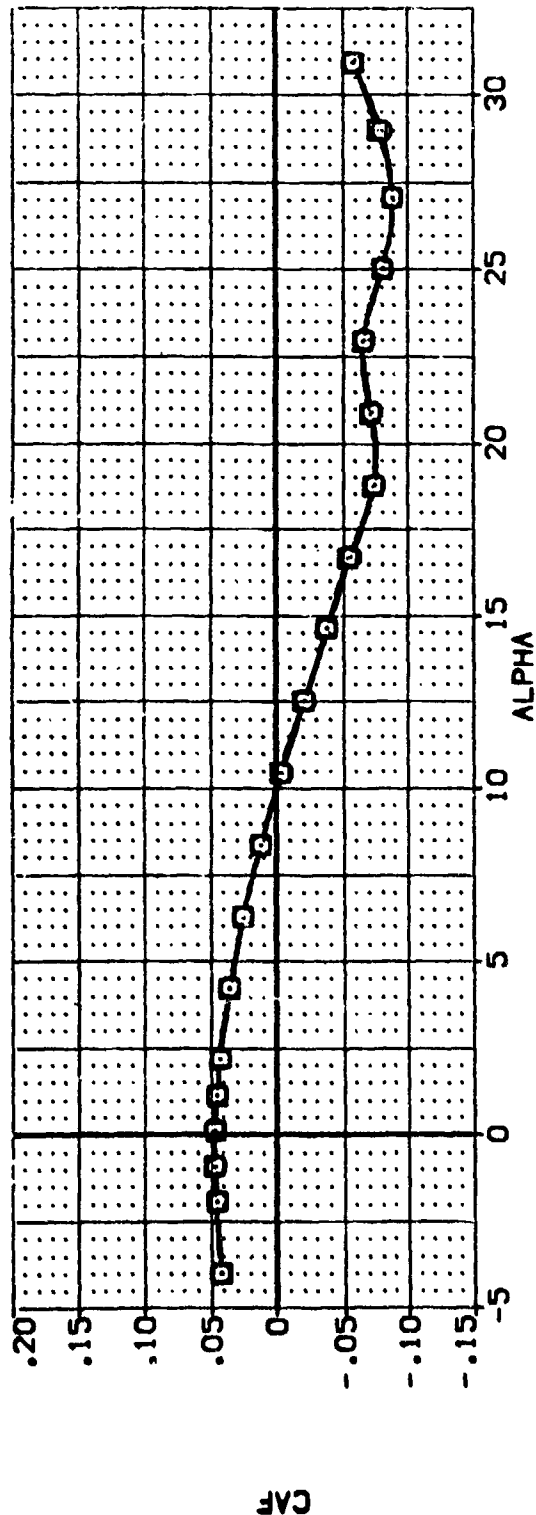
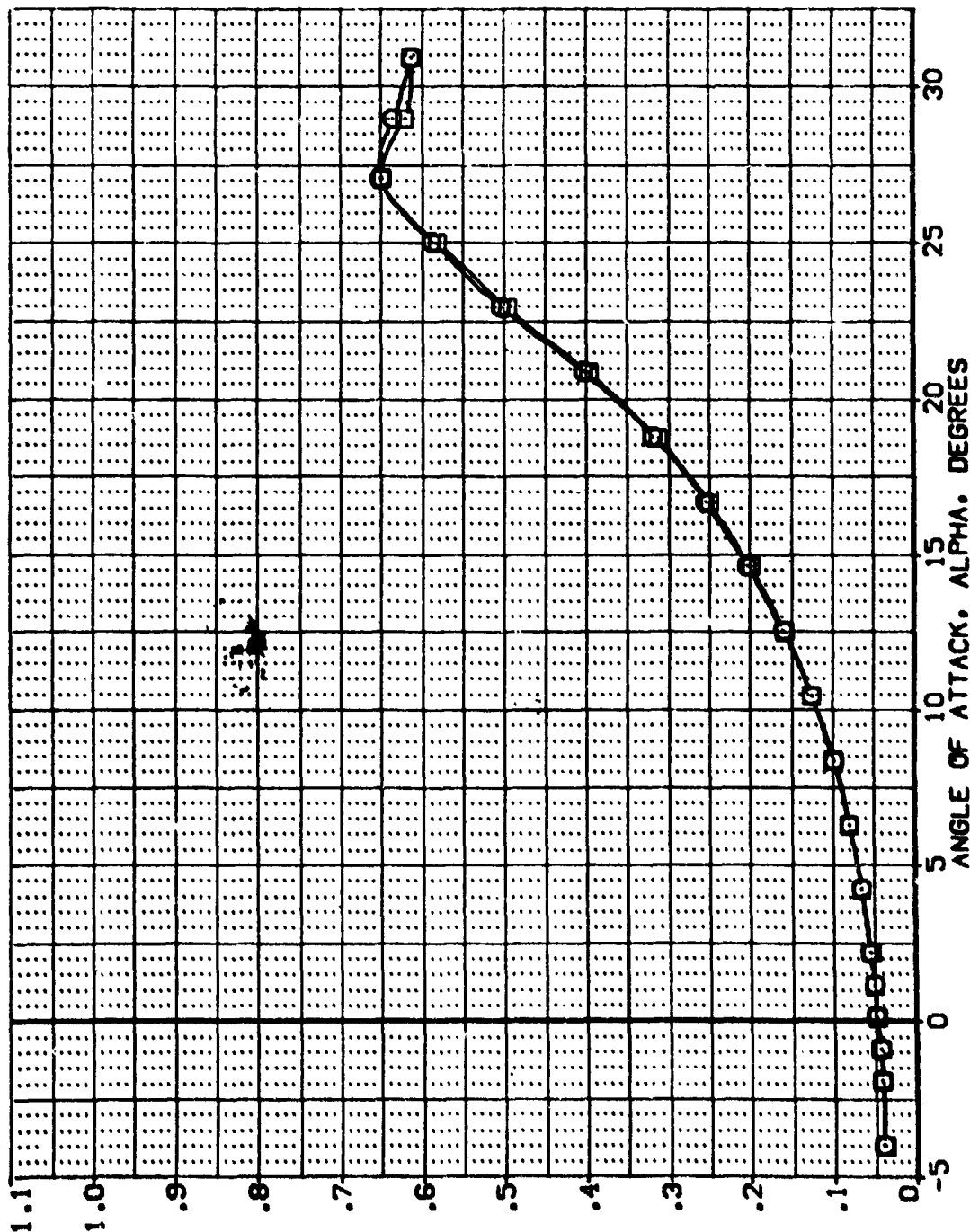


FIG 45 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +15

(A)MACH = .20

ELEVATION	SPROWN	60° LAP	FLOOR	REFERENCE INFORMATION	50. FT.
15.000	25.000	-12.000	.000	BREF	4.4113
15.000	25.000	-12.000	.000	USER	19.2299
				BREF	37.9359
				TRAP	43.5974
				TRAP	.0000
				TRAP	15.1673
				SCALE	.0405



**FIG 45 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +15**

$$A_{\text{MACH}} = .20$$

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    REFERENCE INFORMATION

[BDZ112]	04528 B26C3 M7F8 V11E26V8F5C3	REF 4.4118 SO.FT.
[BDZ112]	04528 B26C3 M7F8 V11E26V8F5C3	REF 19.2288 INCHES
		REF 37.9359 INCHES
		REF 43.9574 INCHES
		REF .0000 INCHES
		REF 15.1875 INCHES
		SCALE .0405

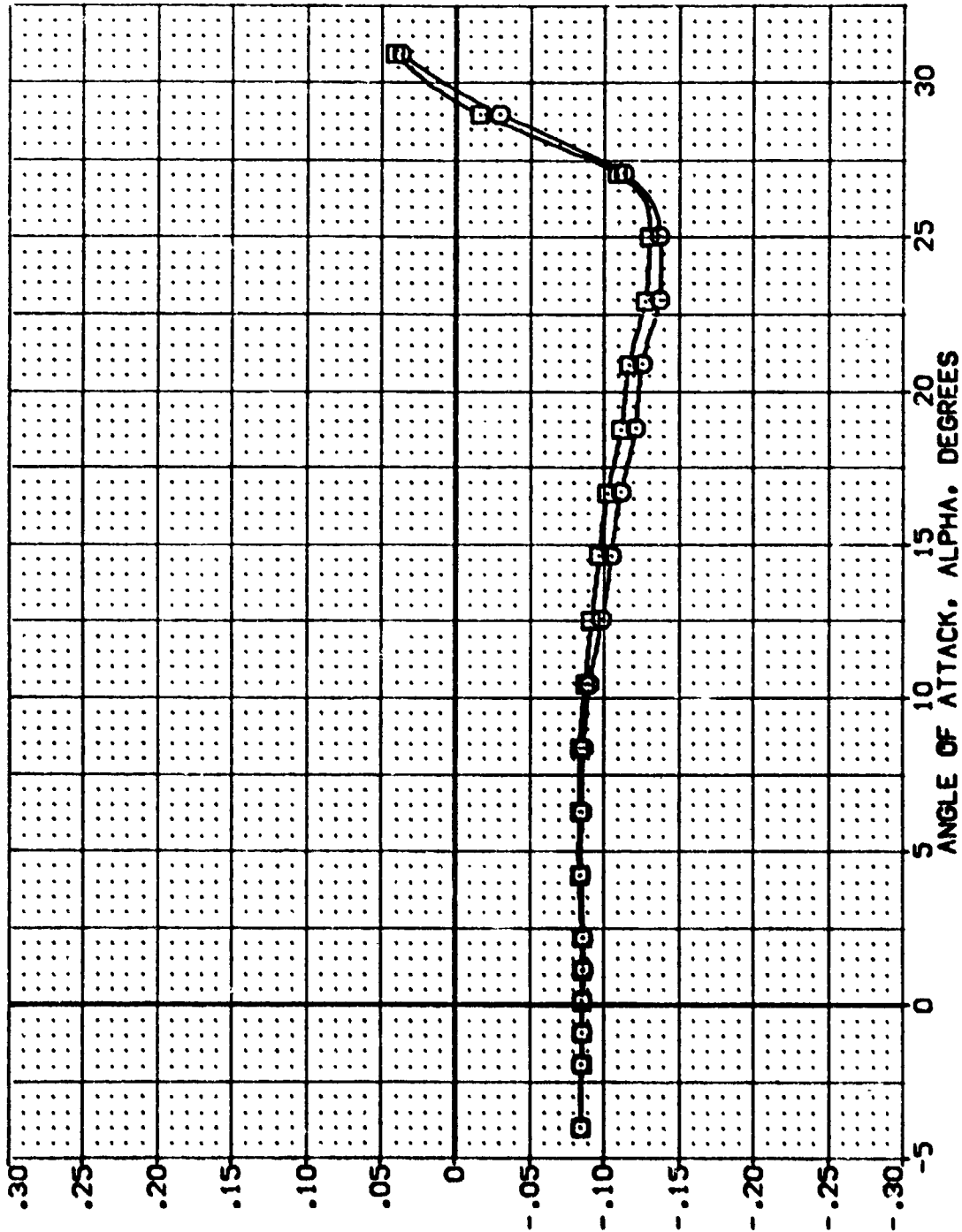


FIG 45 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +15

(MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802113) 8 84528 828C3 M78 V11628V85V3  
 (802112) 8 84528 828C3 M78 V11628V85V3

ELEVON SPORX BDLAP RUDDER REFERENCE INFORMATION  
 15.000 25.000 -12.000 .000 4.4118 80.17  
 15.000 25.000 -12.000 .000 19.2289 INO-ES  
 37.9339 INO-ES  
 43.9974 INO-ES  
 YMRP .0000 INO-ES  
 ZMRP 15.1875 INO-ES  
 SCALE .0405 SCALE

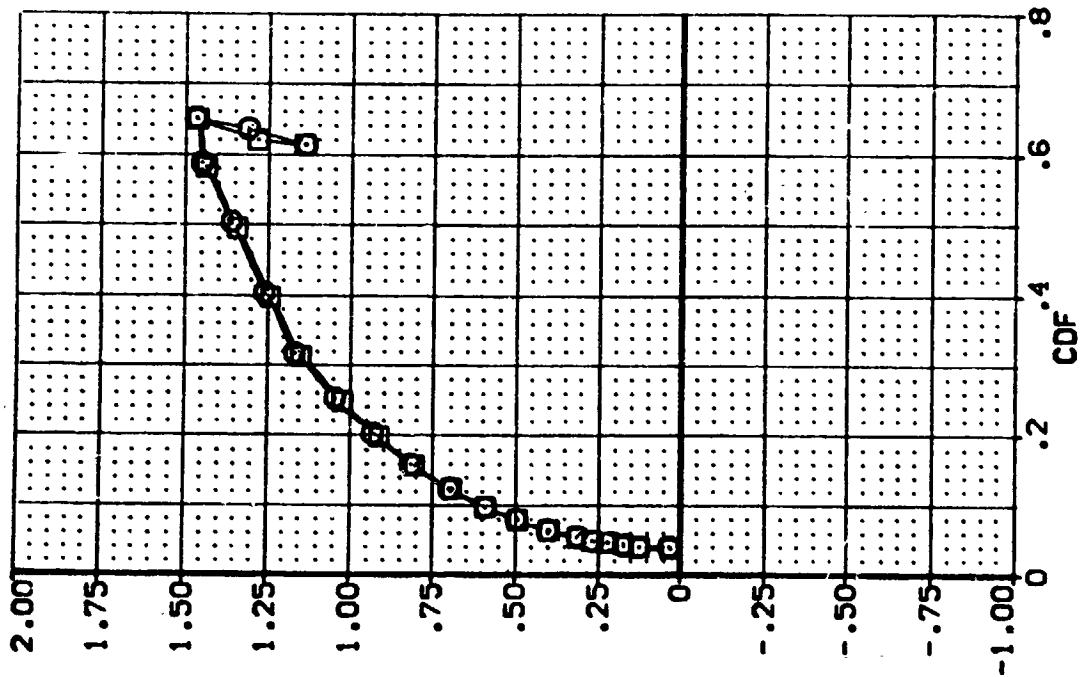
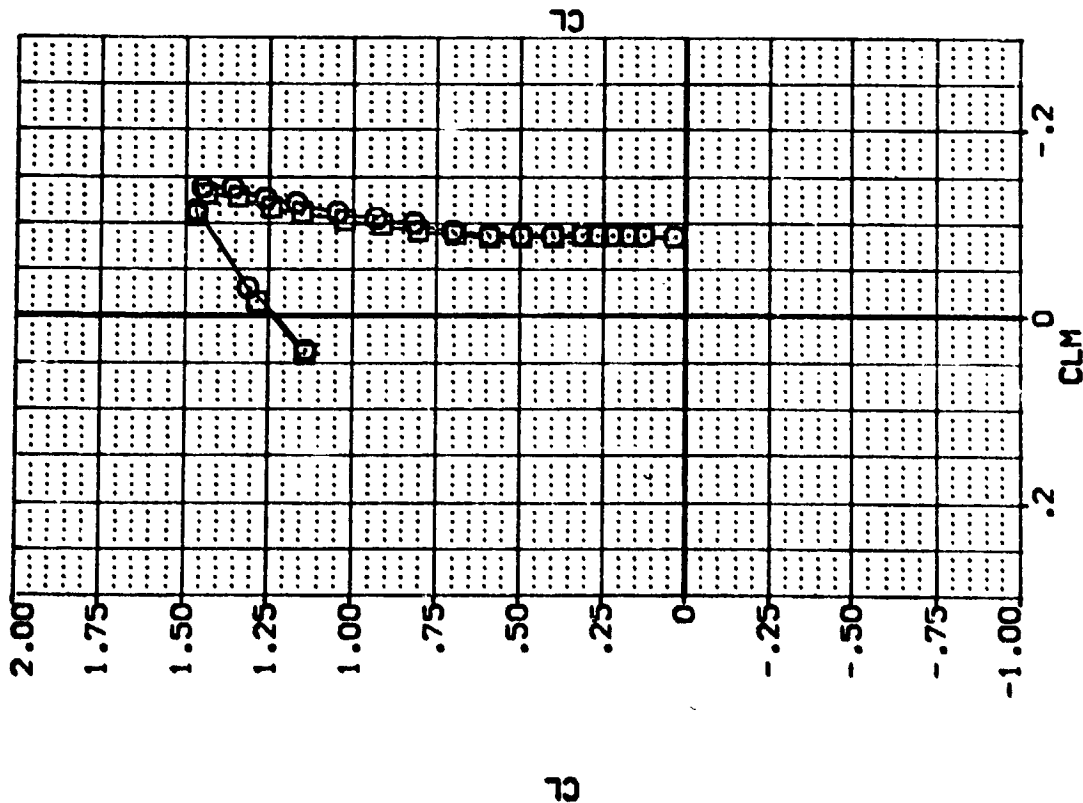


FIG 45 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +15

(AJMACH = .20

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOONK	EDFLAP	RUDDER	REFERENCE INFORMATION
(B02113)	0A628 B0203 M778 V116E28V85X9	15.000	25.000	-12.000	.000	PREF 4.4119 50.FT.
(B02112)	0A628 B0203 M778 V116E28V85X9	15.000	25.000	-12.000	.000	LREF 19.2299 INCHES
						BREF 37.9359 INCHES
						XTRP 43.5974 INCHES
						YTRP 15.0000 INCHES
						ZTRP 15.1875 INCHES
						SCALE .0405

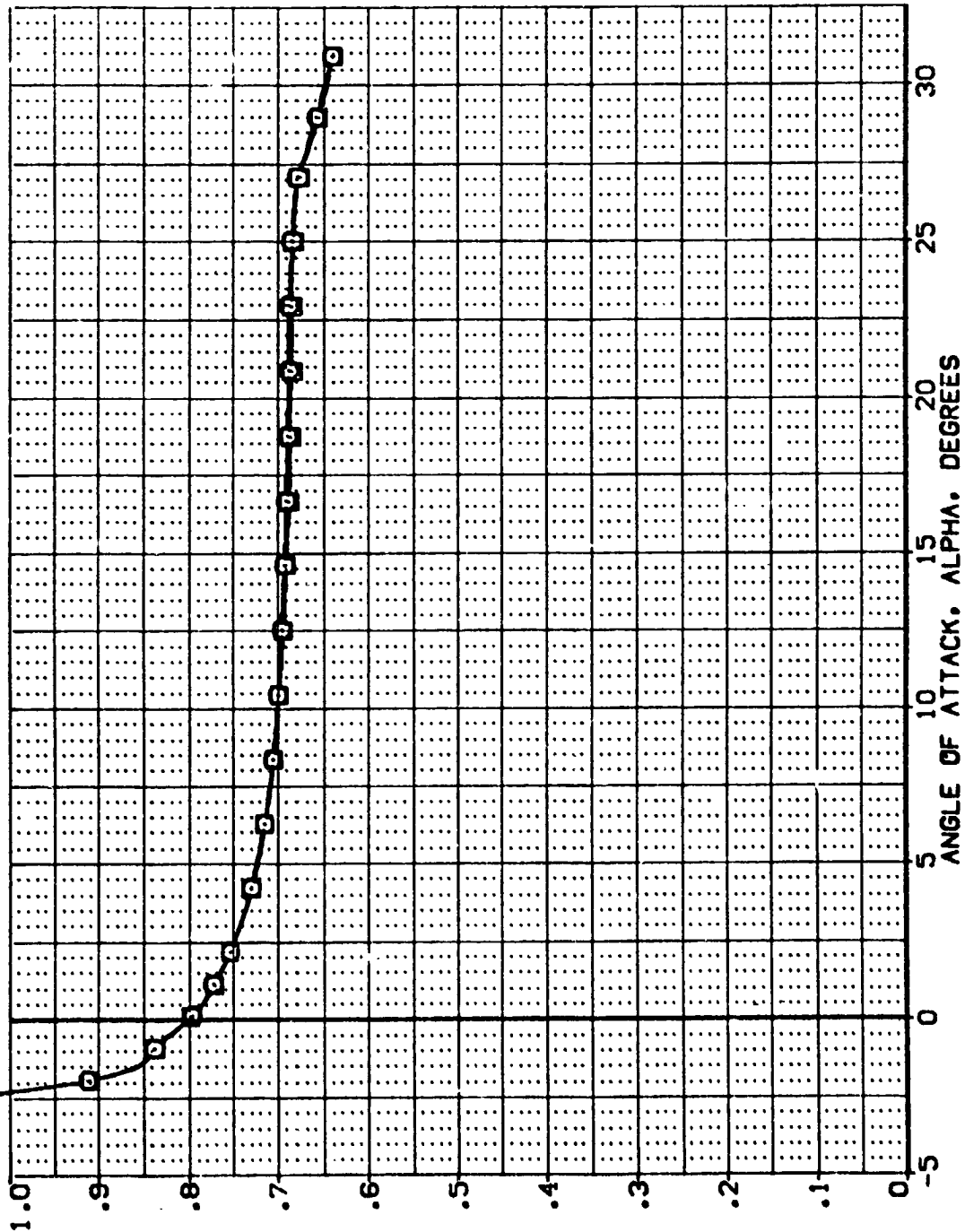


FIG 45 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +15

(A)MACH = .20

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		SPDRBK	BOFLAP	RUDDER	REFERENCE INFORMATION	
{802113}	0	04528	B26C9	M7F8	VII1620V/05X9	15.000	25.000	.000	BRF	4.4119
{802112}	0	04528	B26C9	M7F8	VII1620V/05X9	15.000	-12.000	.000	LREF	19.2299
									BRF	37.9359
									YMRP	43.5974
									ZMRP	.0000
									SCALE	15.1875
										.0405
										INCHES
										INCHES
										INCHES
										INCHES
										INCHES
										SCALE

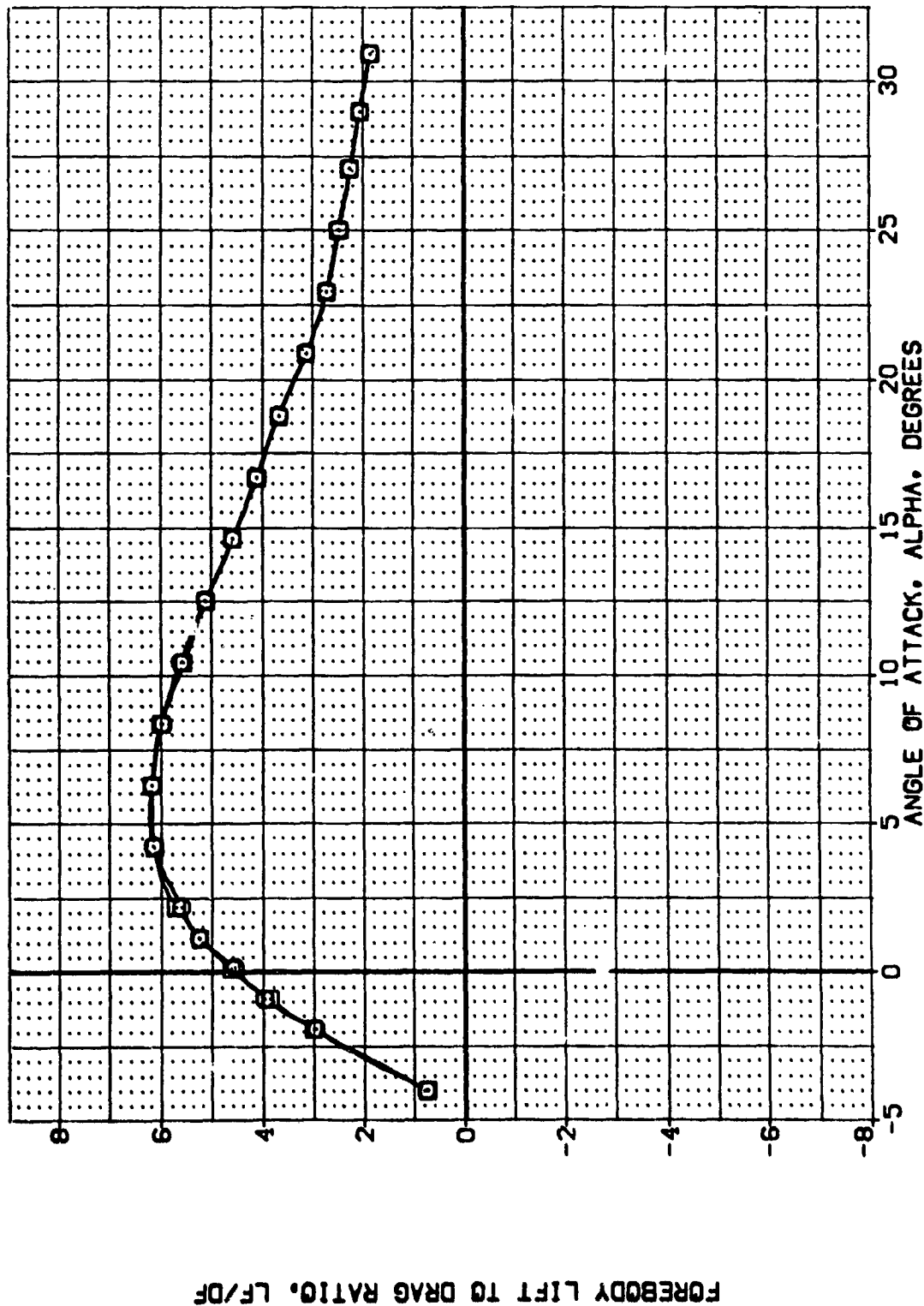


FIG 45 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = +15

MAJ MACH = .20



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		SPURK		BOLAP		FLUDER		REFERENCE INFORMATION		
(80210)	8	8AC28	828C9	M7F8	V11E28V85K9	-10.000	25.000	25.000	-12.000	.000	.000	BREF	4.4119	90.57
(802109)	8	8AC28	828C9	M7F8	V11E28V85K9	-10.000	25.000	25.000	-12.000	.000	.000	LBREF	19.2299	INO-ES
												BREF	37.9359	INO-ES
												YTRP	43.5974	INO-ES
												ZTRP	15.1875	INO-ES
												SCALE	.0405	SCALE

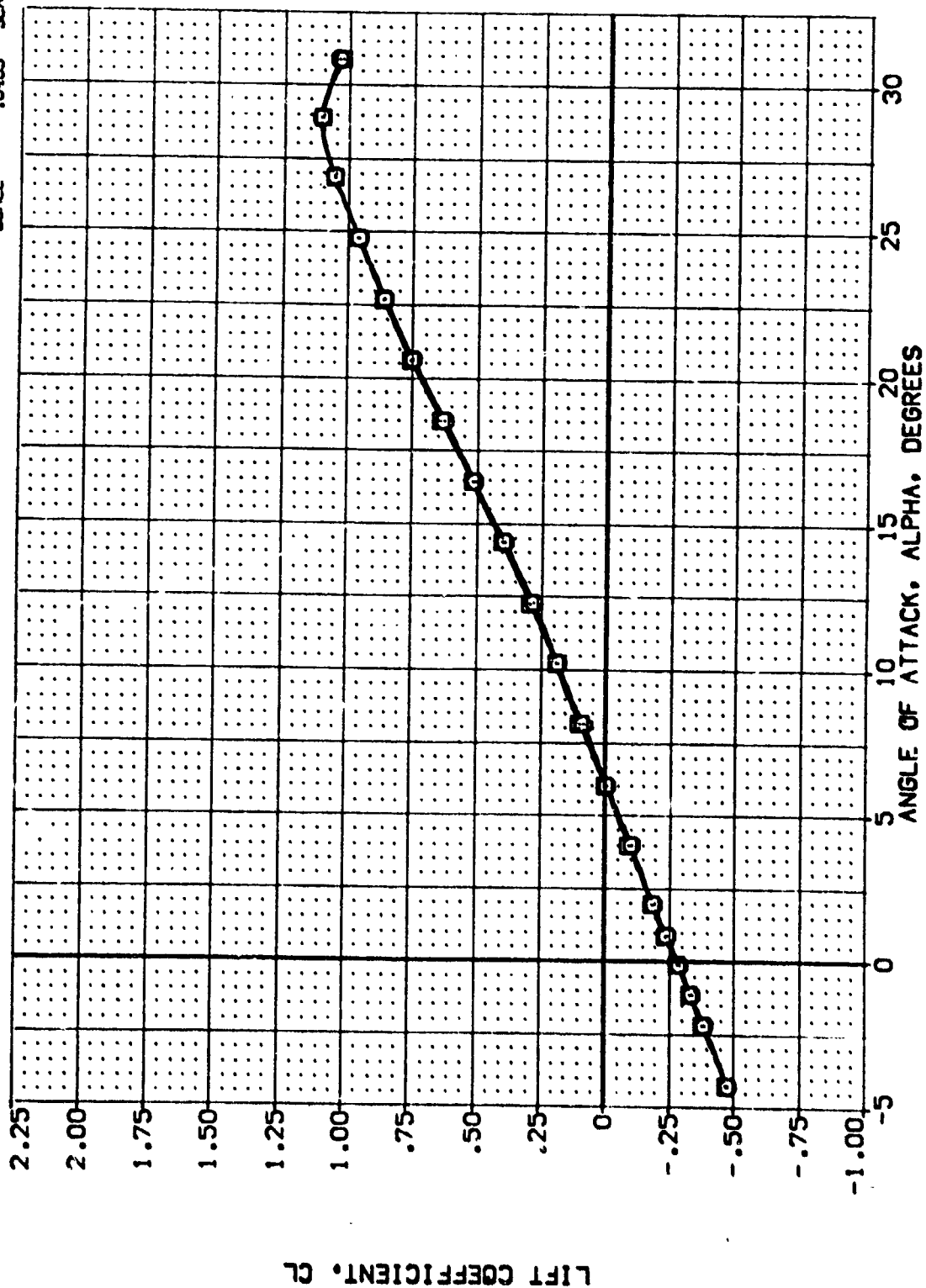


FIG 46 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = -10  
(MACH = .20)

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		SPURK		BOFLAP		RUDDER		REFERENCE INFORMATION	
{BDZ110}	0A528	808C3	MTF8	V116Z26/8PSX3	-10.000	25.000	25.000	-12.000	.000	.000	4.4119	50.47	
{BDZ108}	0A528	808C3	MTF8	V116Z26/8PSX3	-10.000	25.000	25.000	-12.000	.000	.000	19.7289	INCHES	
											37.9559	INCHES	
											43.5574	INCHES	
											.0000	INCHES	
											15.1875	INCHES	
											.0405	SCALE	

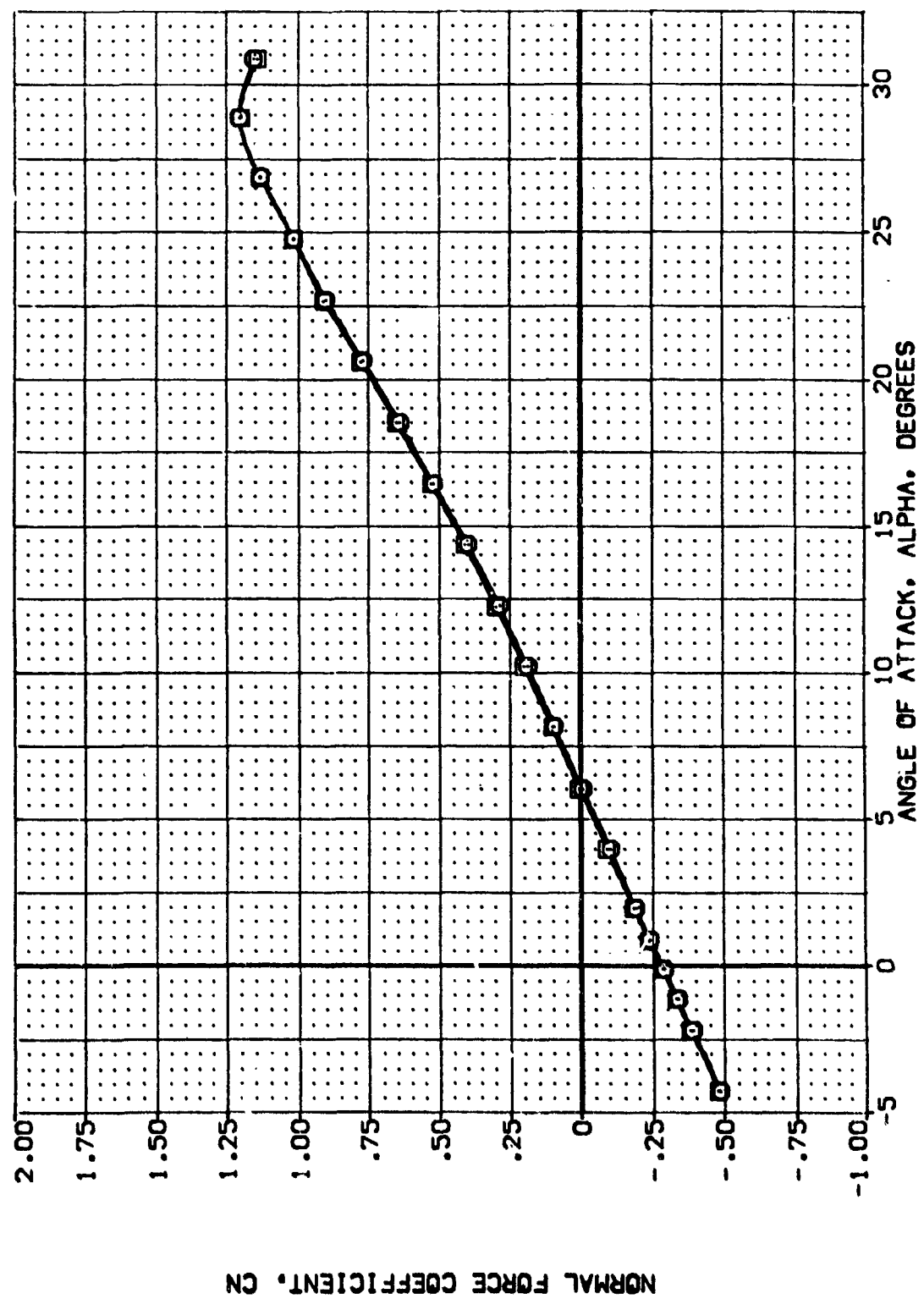


FIG 46 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = -10

MAJ MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (802110) 0 0AS2B B26C9 M7F8 V11E28V8P5X9  
 (802109) 0 0AS2B B26C9 M7F8 V11E28V8P5X9

ELEVON SPOBRK BDFLAP RUDDER  
 -10.000 25.000 -12.000 .000  
 -10.000 25.000 -12.000 .000

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5574 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

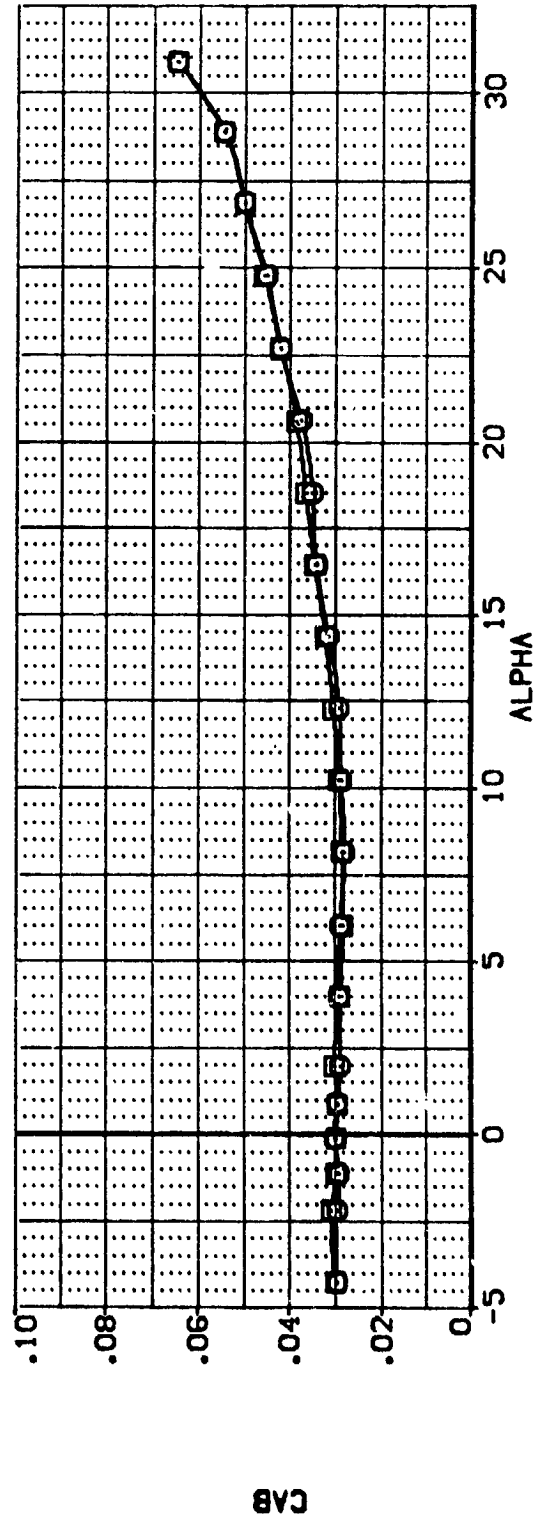
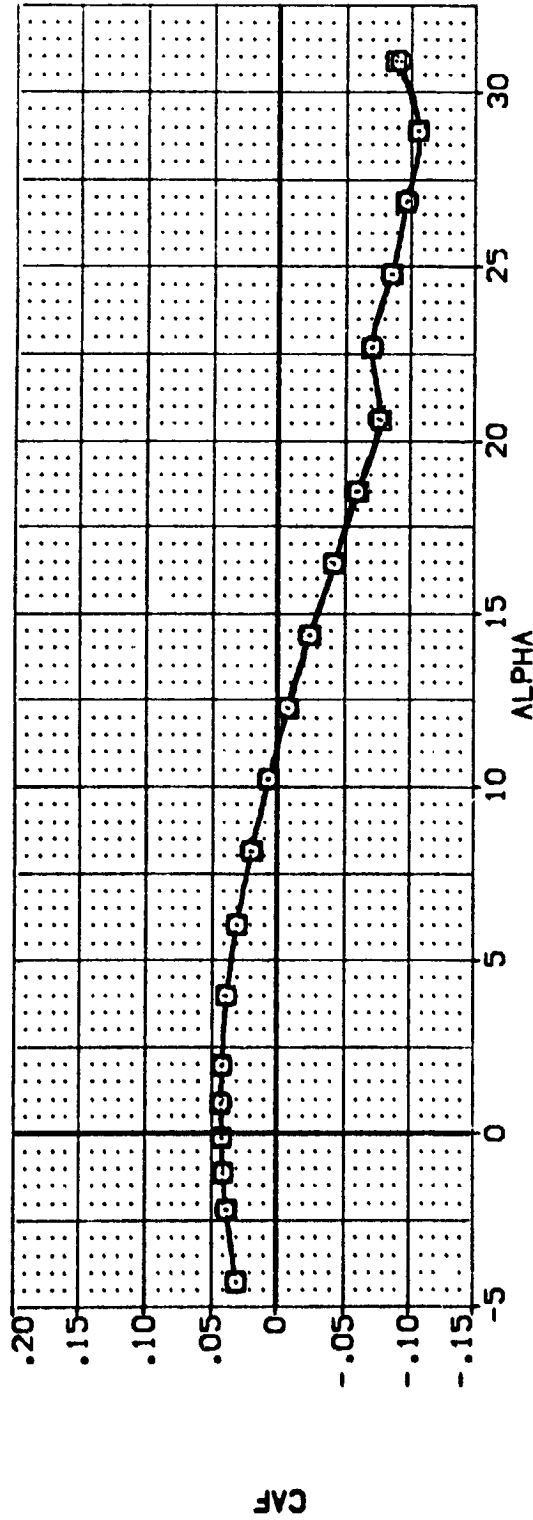


FIG 46 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = -10

(A)MACH = .20

DATA SET SYMBOL: 0A628 826C3 M7F8 V116228V85C3  
 (802103) 0A628 826C3 M7F8 V116228V85C3

ELEVON 900BK 80FLAP RUDDER  
 -10.000 25.000 -12.000 .000  
 -10.000 25.000 -12.000 .000

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT  
 LREF 19.2298 INCHES  
 BREF 37.5358 INCHES  
 XPRP 43.5874 INCHES  
 YPRP .0000 INCHES  
 ZPRP 15.1875 INCHES  
 SCALE .0405

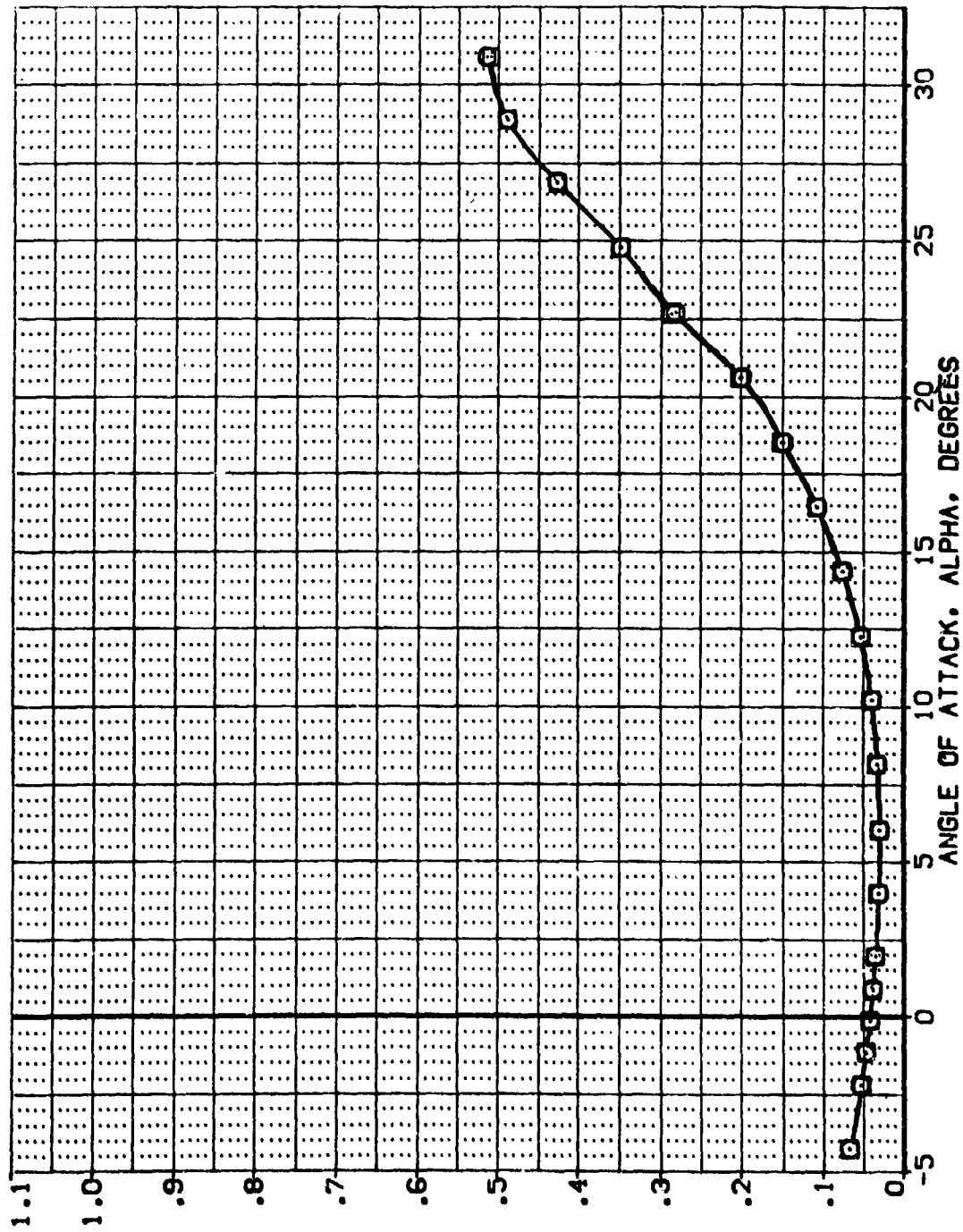


FIG 46 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = -10

(A)MACH = .20

DATA SET SYMBOL				CONFIGURATION DESCRIPTION				REFERENCE INFORMATION			
[802110]	84528	826C3	M7F8	V116E28V8B3X8	ELEVON	SPOBRK	BOFLAP	RUDDER	SREF	4.4119	50.FT.
[802109]	84528	826C3	M7F8	V116E28V8B3X8	-10.000	25.000	-12.000	.000	LREF	19.2299	INCHES
					-13.000	25.000	-12.000	.000	BREF	37.9359	INCHES
									XMRP	43.5974	INCHES
									YMRP	.0000	INCHES
									ZMRP	15.1875	INCHES
									SCALE	.0405	SCALE

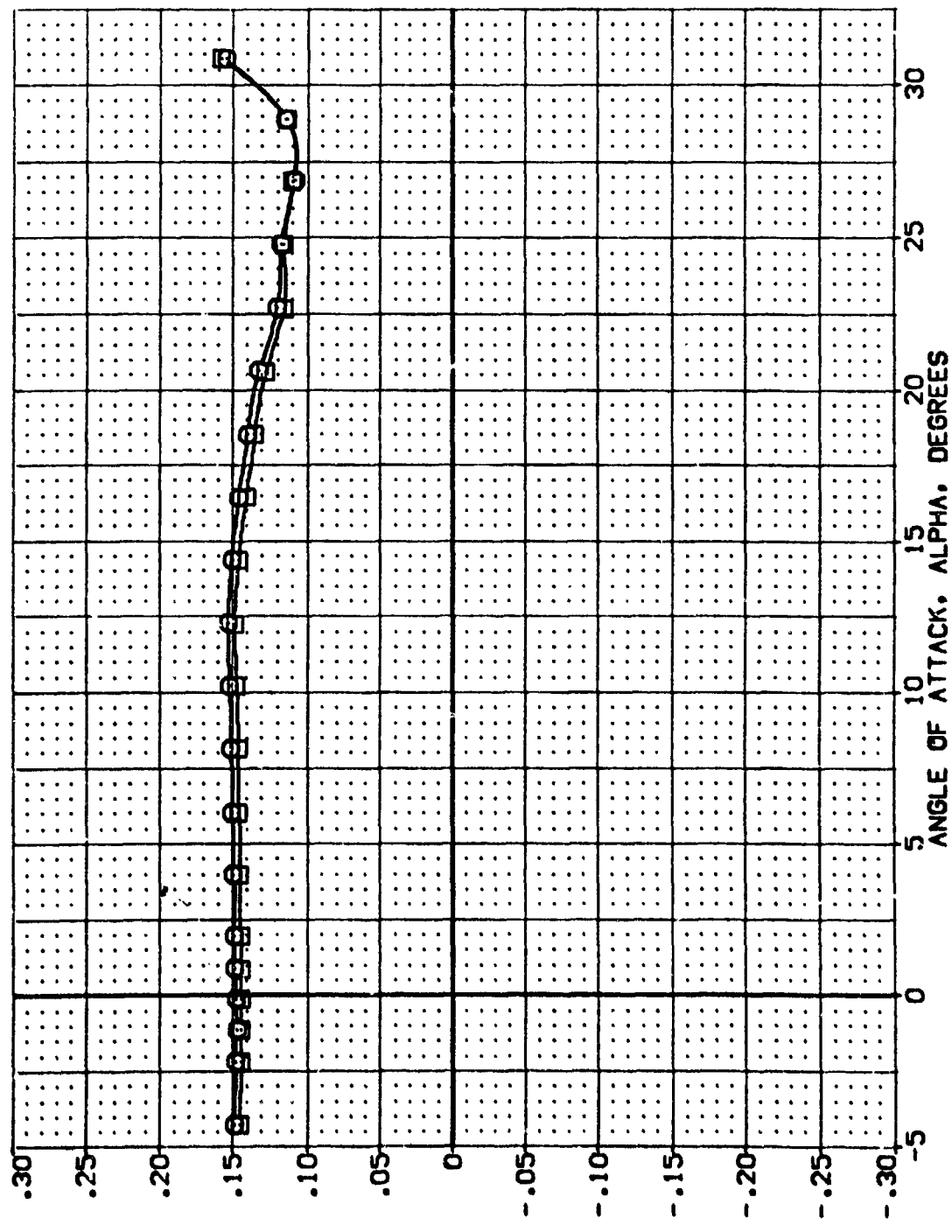


FIG 46 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = -10

(A)MACH = .20

DATA SET SYMBOL: CONFIGURATION DESCRIPTION  
 (B02110) M78 V116E26V85X3  
 (B02108) M78 V116E26V85X3

ELEVON SPURK BOFLAP RUDDER REFERENCE INFORMATION  
 -10.000 25.000 -12.000 .000 4.4119 50.000  
 -10.000 25.000 -12.000 .000 19.2259 100.000  
 .000 .000 .000 .000 37.9359 150.000  
 .000 .000 .000 .000 43.5974 200.000  
 .000 .000 .000 .000 15.1875 250.000  
 .000 .000 .000 .000 .0405 300.000

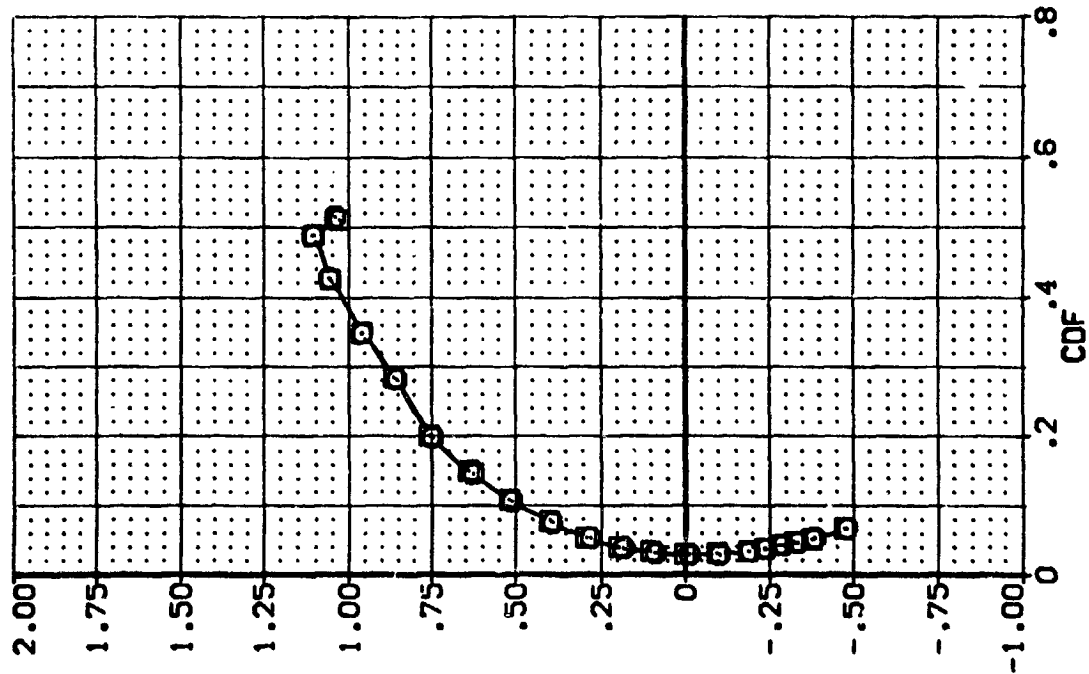
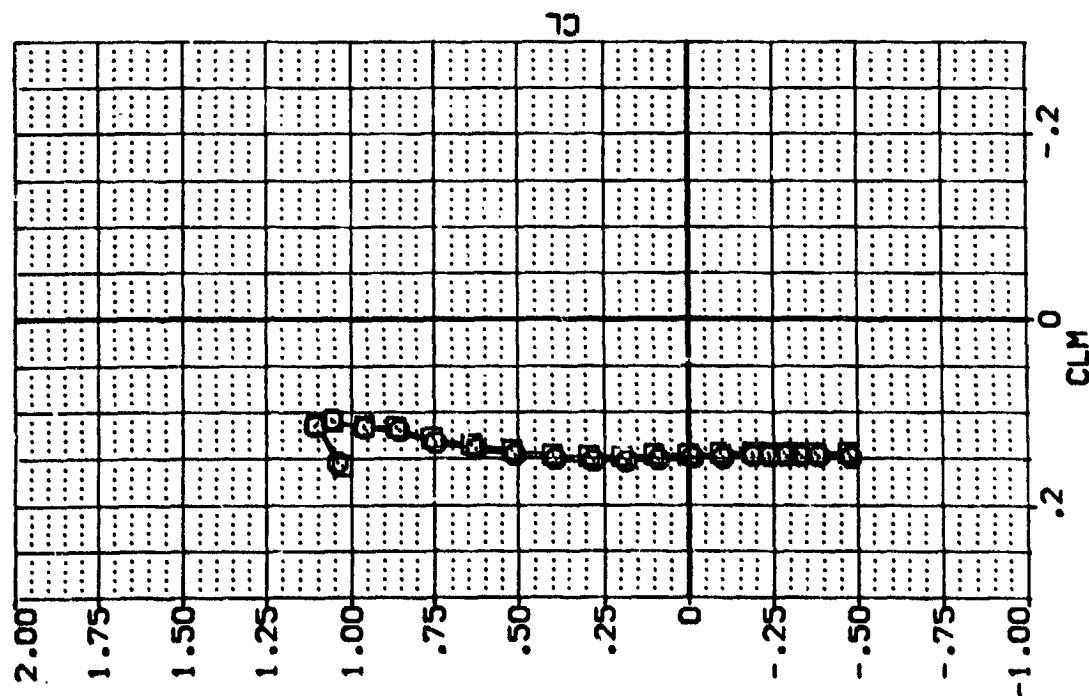


FIG 46 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = -10

CLM = .20

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORK	BDCLAP	FLUDER	REFERENCE INFORMATION
[B02110]	QAS28 B28C3 M7F8 V1 6E28/885X3	-10.000	25.000	-12.000	.000	SREF 4.4119 50.FT. INCHES
[B02109]	QAS28 B28C3 M7F8 V1 6E28/885X3	-10.000	25.000	-12.000	.000	LREF 19.2299 INCHES
						BREF 37.9358 INCHES
						XTRP 43.5574 INCHES
						YTRP .0000 INCHES
						ZTRP 15.1875 INCHES
						SCALE .0405 SCALE

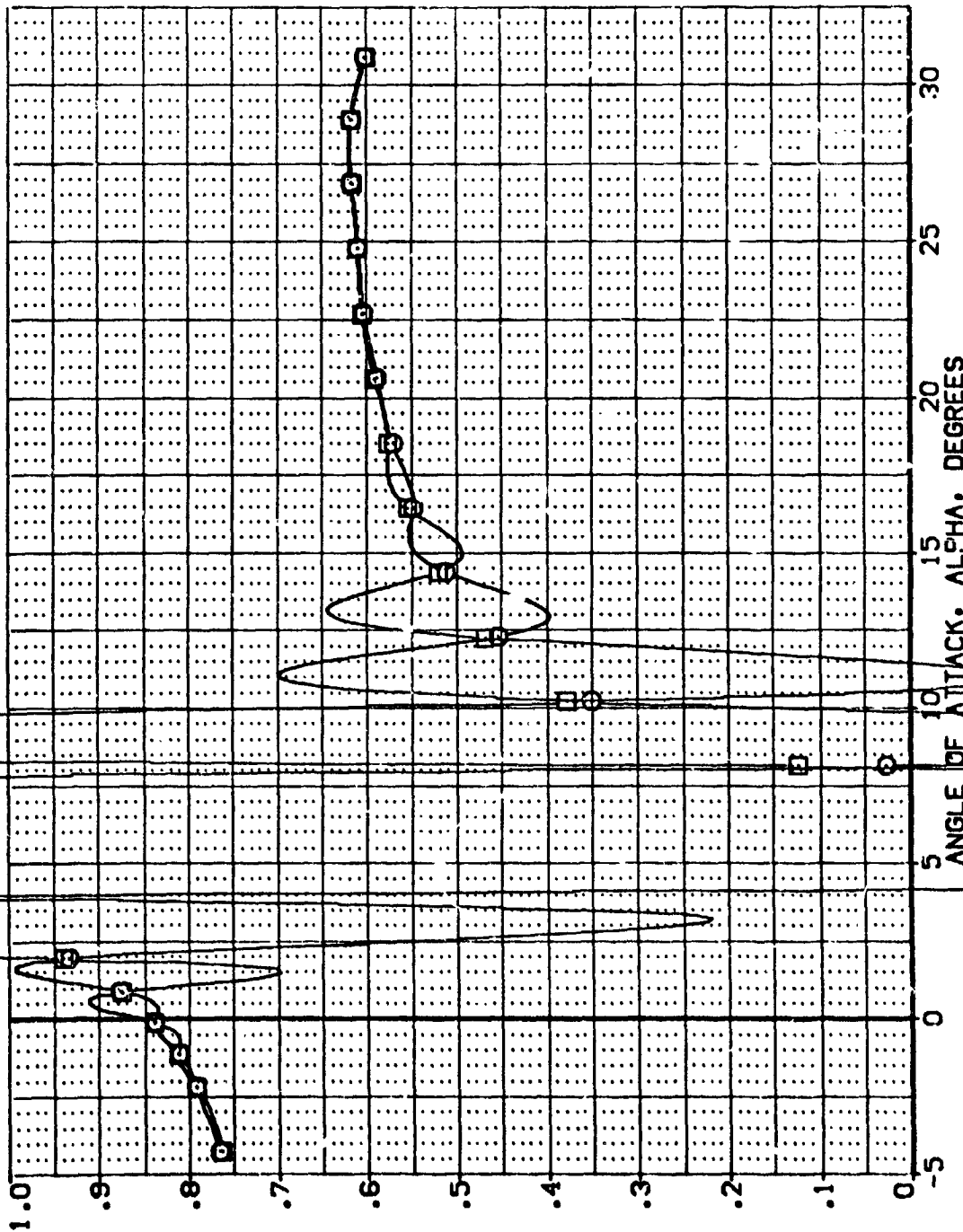


FIG 46 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = -10

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (BDZ110) 0 QAS28 B26C3 M7F8 V11E28V85X3  
 (BDZ109) 0 QAS28 B26C3 M7F8 V11E28V85X3

ELEVON SPORK BFLAP RUDDER REFERENCE INFORMATION  
 -10.000 25.000 -12.000 0.000 4.418 80.000  
 -10.000 25.000 -12.000 0.000 19.228 10.000  
 0.000 0.000 0.000 0.000 37.828 10.000  
 0.000 0.000 0.000 0.000 43.557 10.000  
 0.000 0.000 0.000 0.000 15.187 10.000  
 0.000 0.000 0.000 0.000 0.040 10.000

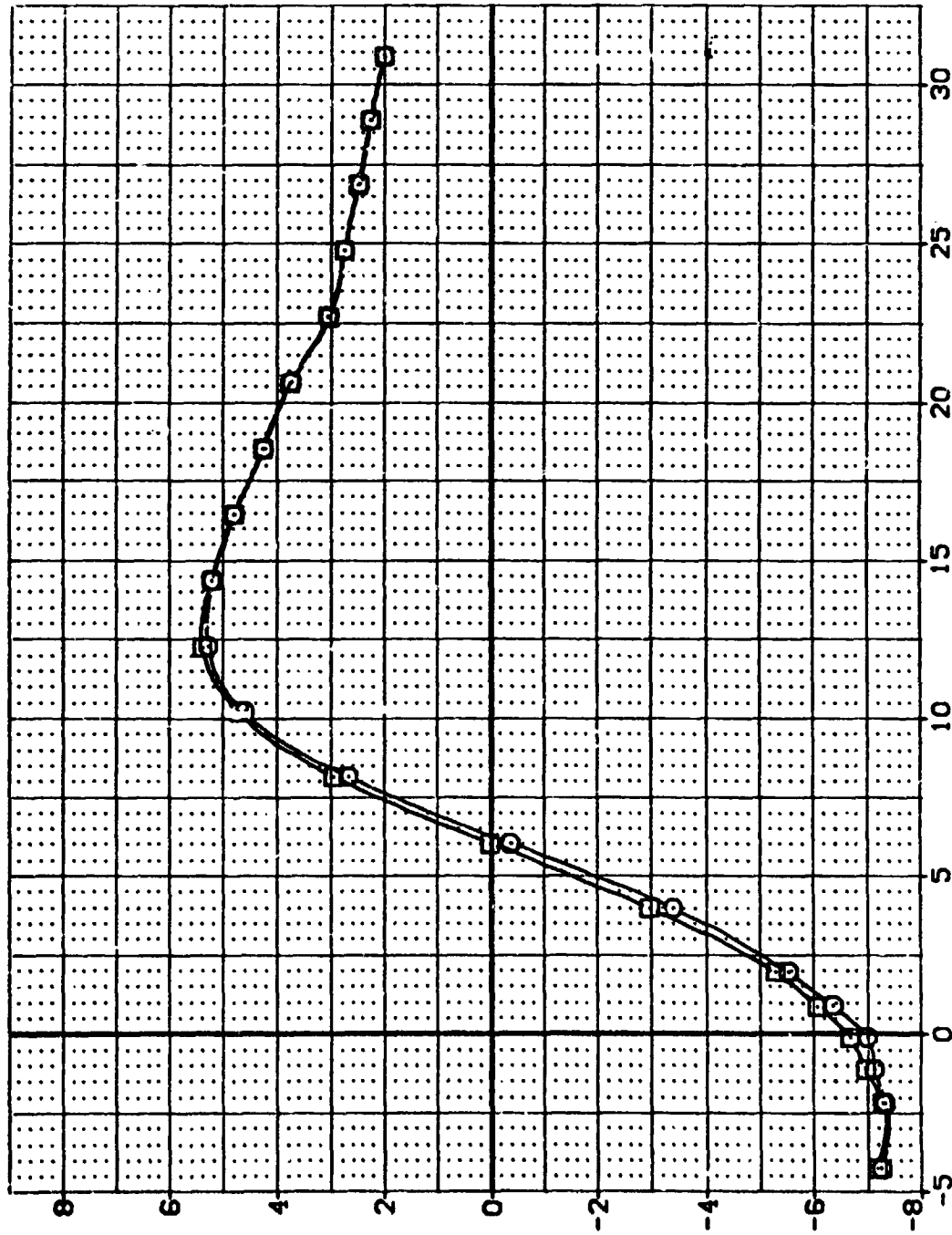
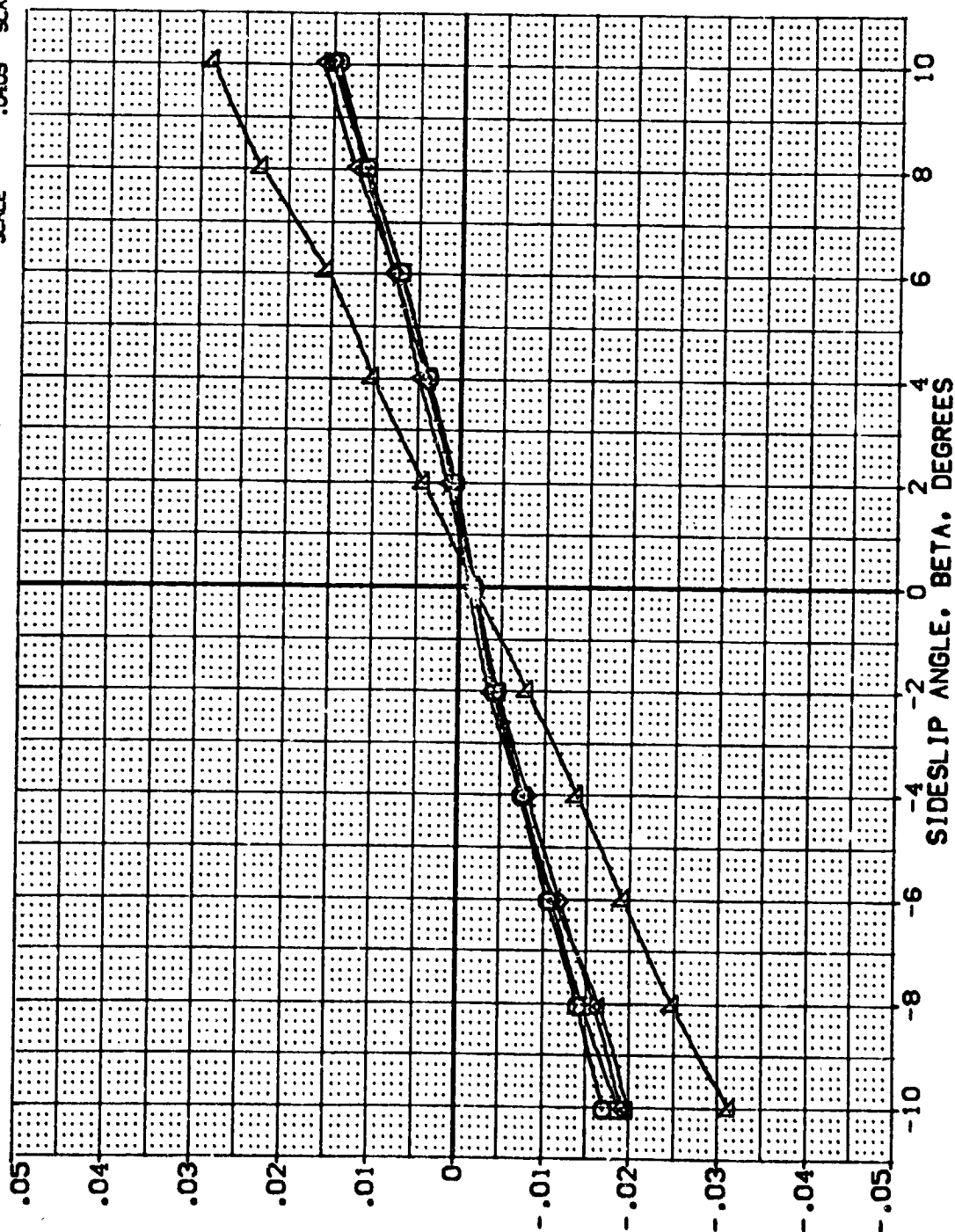


FIG 46 EFFECT OF BASELINE ELEVON GAP, GEAR OFF, ELEVON = -10

MACH = .20



DATA SET SYMB.	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	AIRLON	REFERENCE INFORMATION
[RZ125]	0A528	0.000	.000	25.000	.000	REF 4.4118 50.FT.
[RZ126]	0A528	5.000	.000	25.000	.000	LREF 19.2259 INCHES
[RZ127]	0A528	10.000	.000	25.000	.000	BREF 37.9359 INCHES
[RZ128]	0A528	15.000	.000	25.000	.000	XREF 43.5574 INCHES
[RZ129]	0A520	20.000	.000	25.000	.000	YREF .0000 INCHES
						ZREF 15.1675 INCHES
						SCALE .0405



YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

FIG 47 LAT-DIR STAB., GEAR OFF, RUDDER = 0, 25 DEG.FLARE, SOLID ELEVON  
 (A)MACH = .20  
 PAGE 509

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRBK	AILRON	REFERENCE INFORMATION
[R0Z125]	□	0A5Z28 B06C3 M778 V11E26/8P5X3	.000	.000	25.000	.000	SREF 4.4119 90.000
[R0Z126]	◇	0A5Z28 B06C3 M778 V11E26/8P5X3	5.000	.000	25.000	.000	LREF 19.2259 100.000
[R0Z127]	△	0A5Z28 B06C3 M778 V11E26/8P5X3	10.000	.000	25.000	.000	MREF 37.9359 100.000
[R0Z128]	×	0A5Z28 B06C3 M778 V11E26/8P5X3	15.000	.000	25.000	.000	XREF 43.5974 100.000
[R0Z129]		0A5Z28 B06C3 M778 V11E26/8P5X3	20.000	.000	25.000	.000	YREF 15.0000 100.000
							ZREF 15.1875 100.000
							SCALE .0405

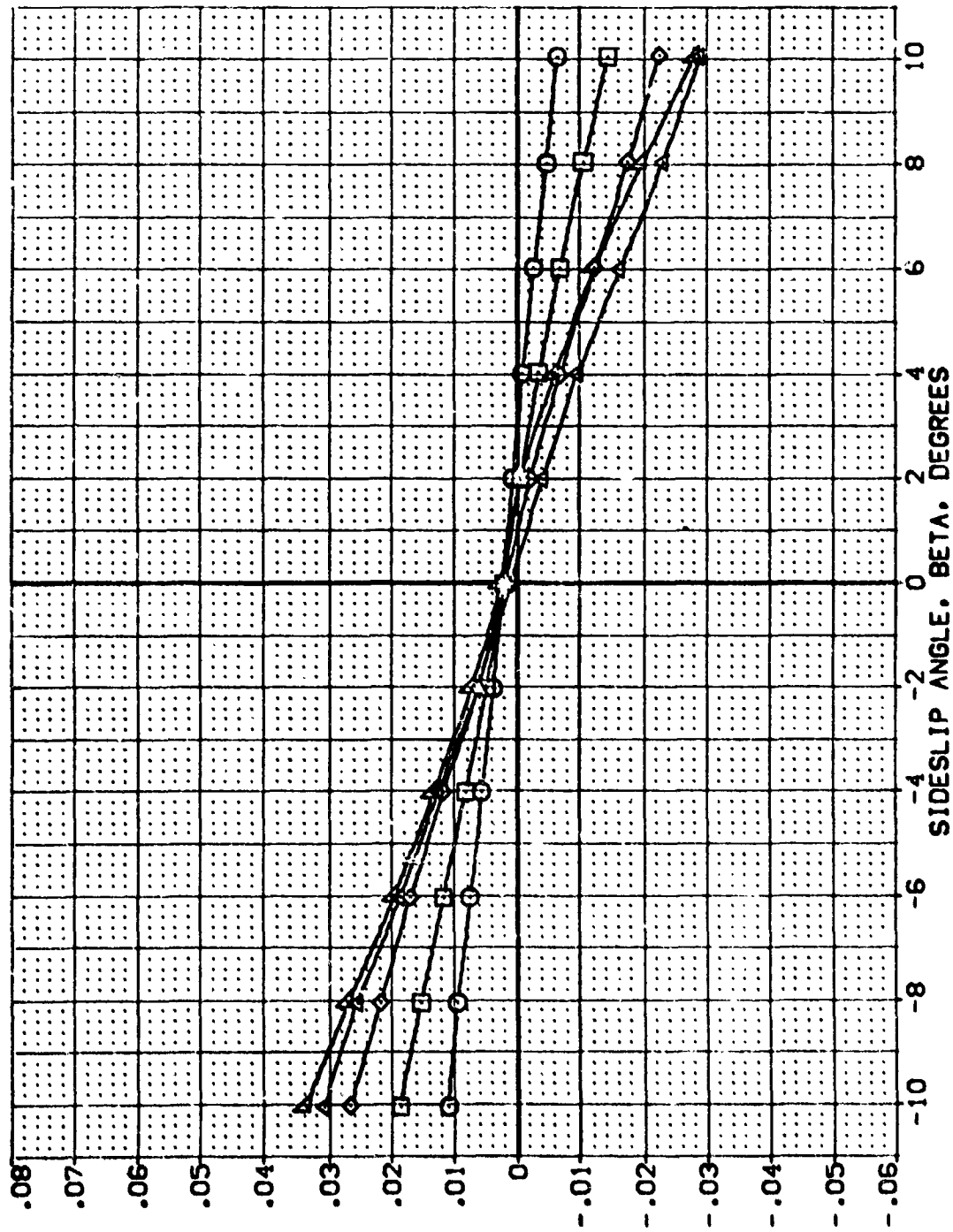


FIG 47 LAT-DIR STAB., GEAR OFF, RUDDER = 0, 25 DEG.FLARE, SOLID ELEVON

(A)MACH = .20

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPORK	AIRLON	REFERENCE INFORMATION
[RZ125]	□	0A628 B26C9 MT8 V11E26V8C9	.000	.000	25.000	.000	BREF 4.4119 50.FT.
[RZ126]	□	0A628 B26C9 MT8 V11E26V8C9	5.000	.000	25.000	.000	LREF 19.2299 INCHES
[RZ127]	□	0A628 B26C9 MT8 V11E26V8C9	10.000	.000	25.000	.000	BREF 37.9359 INCHES
[RZ128]	□	0A628 B26C9 MT8 V11E26V8C9	15.000	.000	25.000	.000	XREF 43.5974 INCHES
[RZ129]	□	0A628 B26C9 MT8 V11E26V8C9	20.000	.000	25.000	.000	YREF 15.1875 INCHES
							ZREF .0405 INCHES
							SCALE

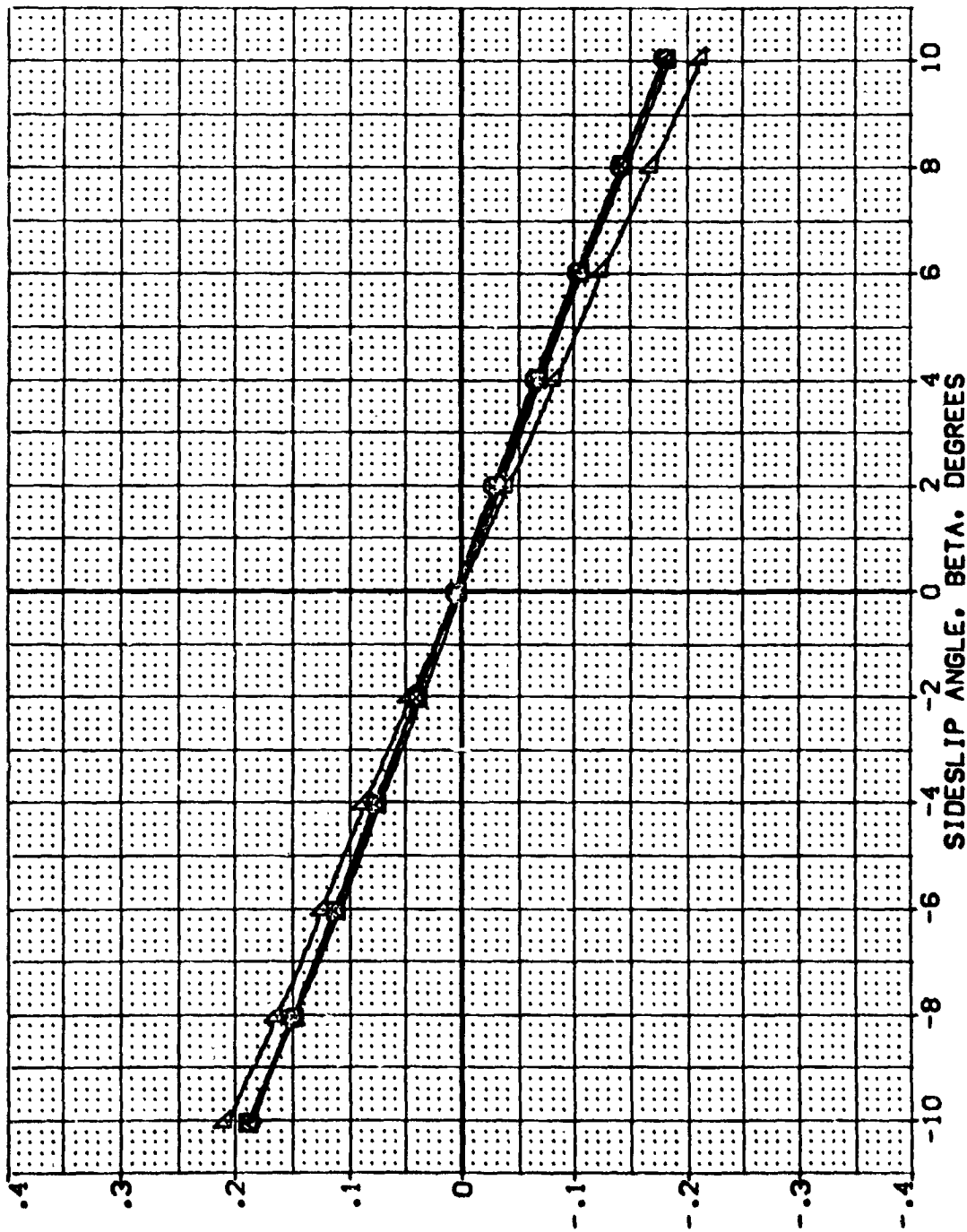


FIG 47 LAT-DIR STAB., GEAR OFF, RUDDER = 0, 25 DEG.FLARE, SOLID ELEVON  
 (A)MACH = .20

0A628 826C9 M7F8 W116E26V8R5X9 (C02125)  
 SYMBOL RUDDER HACH ELEVON SPDRK  
 0 .000 .000 .000 .000  
 PARAMETRIC VALUES  
 .200 BOFLAP -12.000  
 .000 AILRON .000  
 25.000  
 REFERENCE INFORMATION  
 REF 4.4118 90.FT  
 LREF 19.2738 INO-ES  
 BREF 37.9358 INO-ES  
 XARP 43.5974 INO-ES  
 YARP .0000 INO-ES  
 ZARP 15.1875 INO-ES  
 SCALE .0405 INO-ES

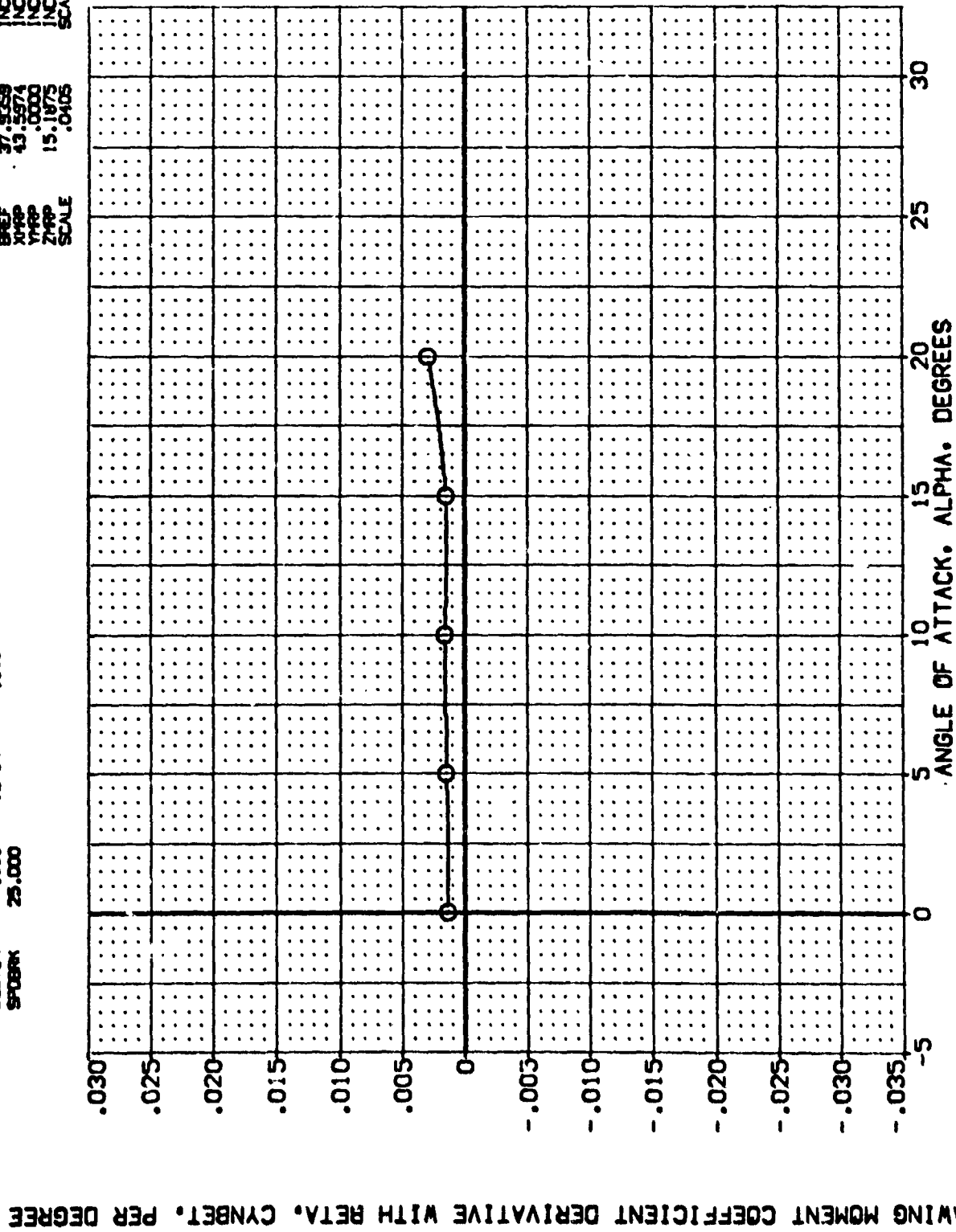


FIG 47 LAT-DIR STAB., GEAR OFF, RUDDER = 0, 25 DEG.FLARE, SOLID ELEVON

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

SYMBOL  
O

0A628 B26C9 M7F8 W116526V8R5X9

(C0Z125)

RUDDER  
.000  
MCH  
ELEVON  
SPDRK  
25.000  
PARAMETRIC VALUES  
.200  
BDFLAP  
-12.000  
.000  
AILRON  
.000

REFERENCE INFORMATION  
REF 4.4119 50.FT  
LREF 19.2259 IN-ES  
BREF 37.9359 IN-ES  
XREF 43.5974 IN-ES  
YREF .0000 IN-ES  
ZREF 15.1873 IN-ES  
SCALE .0405

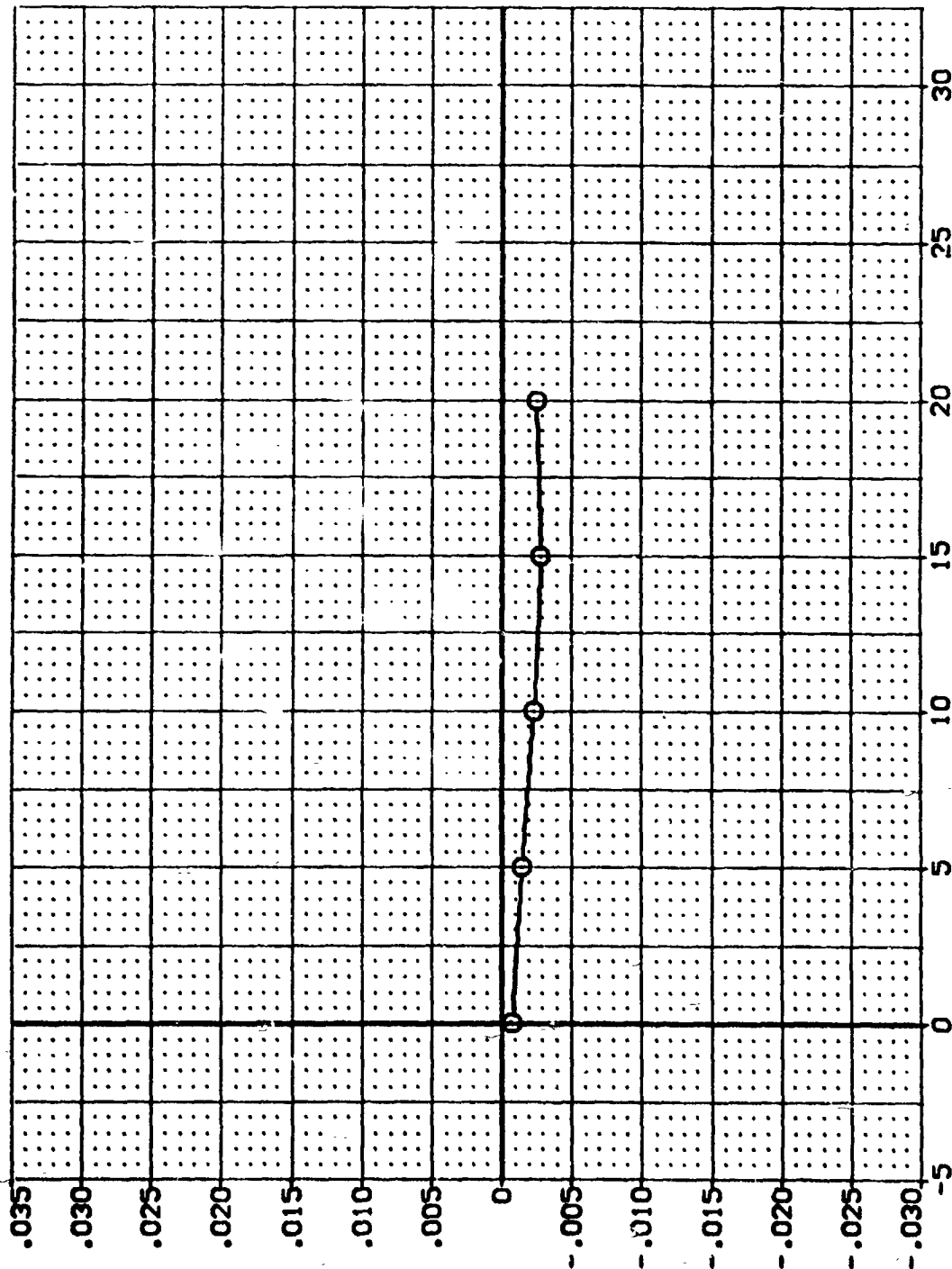


FIG 47 LAT-DIR STAB., GEAR OFF, RUDDER = 0, 25 DEG.FLARE, SOLID ELEVON

(CDZ125)

0A628 B26C9 M7F8 W116E26V8R5X9

REFERENCE INFORMATION  
REF 4.4119 SQ. FT.  
LREF 19.2239 INCHES  
BREF 37.9359 INCHES  
XREF 43.5874 INCHES  
YREF .0000 INCHES  
ZREF 15.1875 INCHES  
SCALE .0405

PARAMETRIC VALUES  
HACH .200 BOFLAP -12.000  
ELEVON .000 AILRON .000  
SPDRN 25.000

SWGL  
O

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

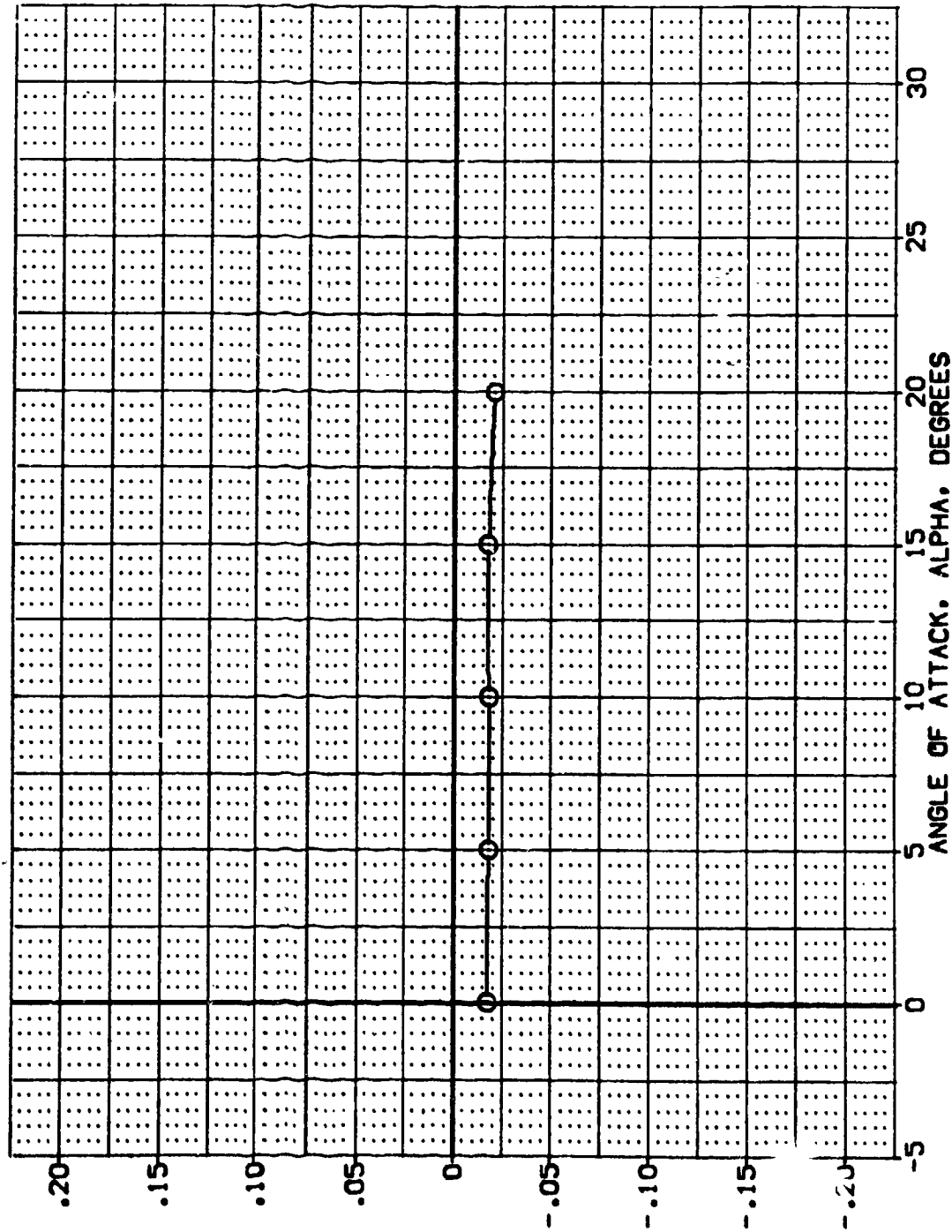


FIG 47 LAT-DIR STAB., GEAR OFF, RUDDER = 0, 25 DEG.FLARE, SOLID ELEVON

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOROK	EDFLAP	AILERON	REFERENCE INFORMATION
[R02117]	DA628 B26C9 MTF8 V11E28V85X9	.000	25.000	-12.000	.000	BREF 4.4119 SQ.FT
[R02120]	DA628 B26C9 MTF8 V11E28V85X9	.000	25.000	-12.000	5.000	LREF 19.2759 INCHES
[R02130]	DA628 B26C9 MTF8 V11E28V85X9	.000	25.000	-12.000	10.000	BREF 37.5359 INCHES
[R02131]	DA628 B26C9 MTF8 V11E28V85X9	.000	25.000	-12.000	15.000	XREF 43.5974 INCHES
[R02132]	DA628 B26C9 MTF8 V11E28V85X9	-10.000	25.000	-12.000	15.000	YREF .0000 INCHES
[R02133]	DA628 B26C9 MTF8 V11E28V85X9	-15.000	25.000	-12.000	15.000	ZREF 15.1875 INCHES
						SCALE .0405

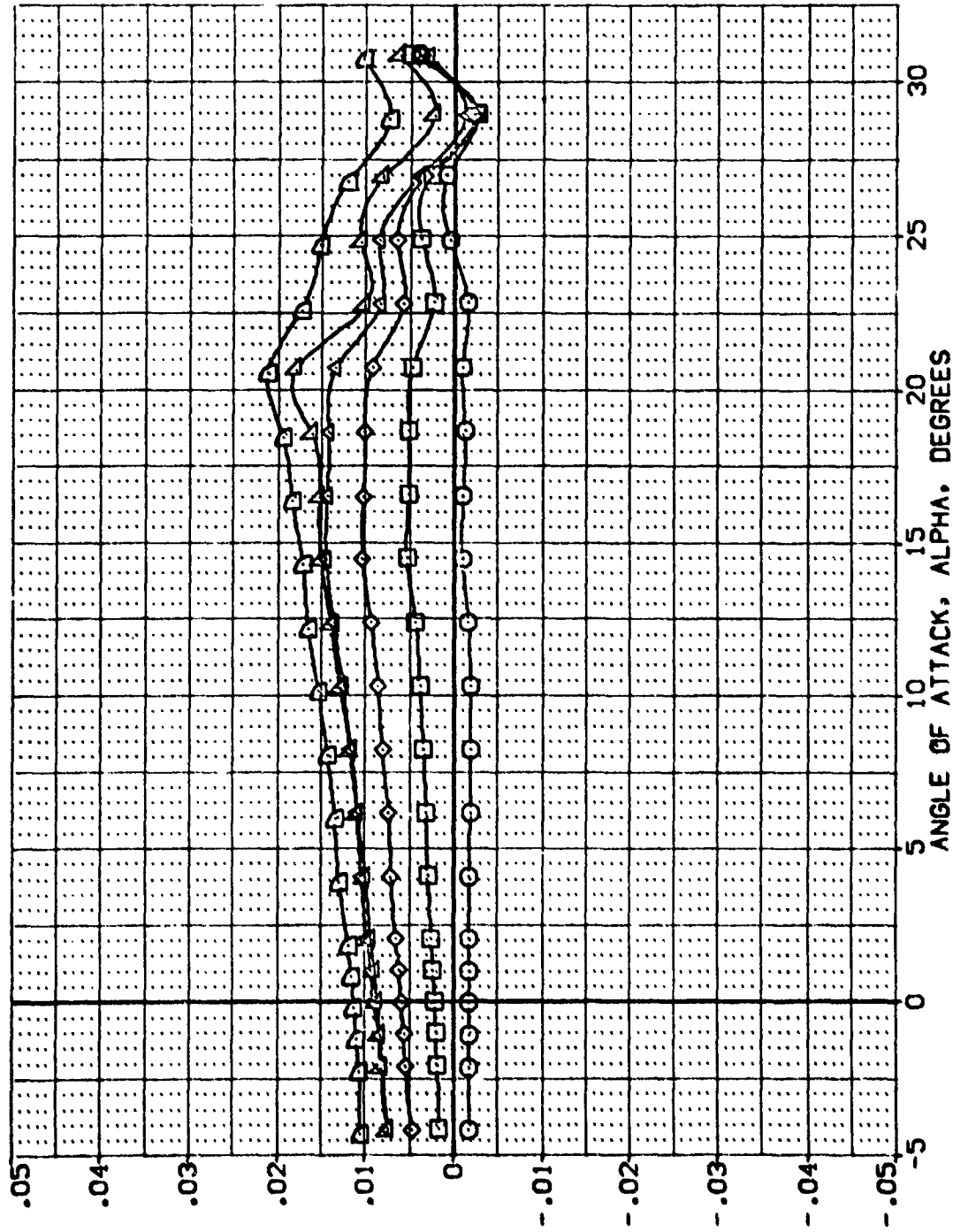


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	AILRON	REFERENCE INFORMATION
[RZ117]	0A628 B26C3 M7F8 V116E28V85V9	.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
[RZ118]	0A628 B26C3 M7F8 V116E28V85V9	.000	25.000	-12.000	5.000	LREF 19.2299 INCHES
[RZ119]	0A628 B26C3 M7F8 V116E28V85V9	.000	25.000	-12.000	10.000	BREF 37.9369 INCHES
[RZ120]	0A628 B26C3 M7F8 V116E28V85V9	.000	25.000	-12.000	15.000	XREF 43.5974 INCHES
[RZ121]	0A628 B26C3 M7F8 V116E28V85V9	-10.000	25.000	-12.000	15.000	YMRP .0000 INCHES
[RZ122]	0A628 B26C3 M7F8 V116E28V85V9	-15.000	25.000	-12.000	15.000	ZMRP 15.1875 INCHES
						SCALE .0405

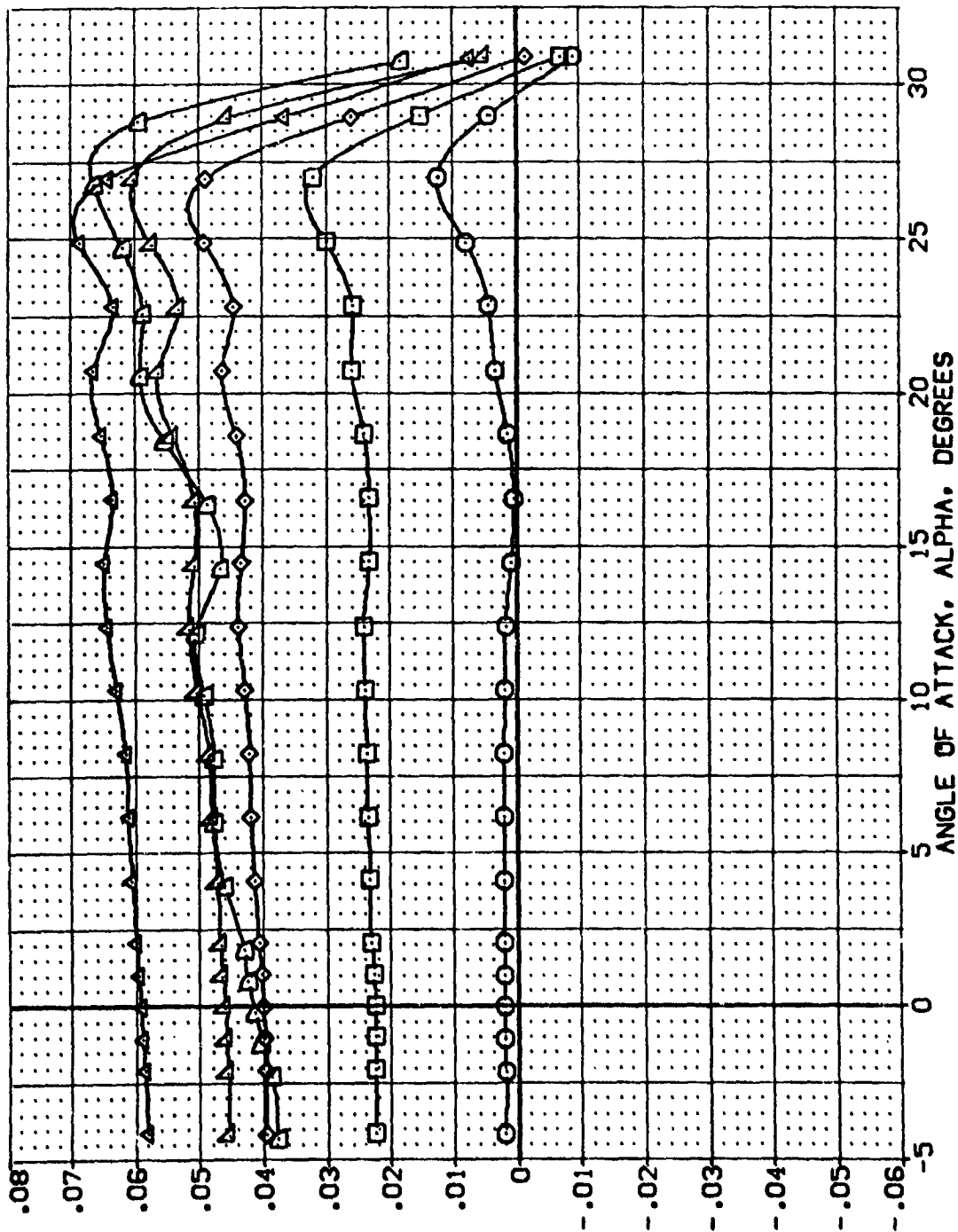


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0.20 MACH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	BOFLAP	AILRON	REFERENCE INFORMATION
(R0Z117)	0A528 B26C9 M7F8 V116E28V8S49	.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(R0Z132)	0A528 B26C9 M7F8 V116E28V8S49	.000	25.000	-12.000	5.000	LREF 19.2299 INCHES
(R0Z133)	0A528 B26C9 M7F8 V116E28V8S49	.000	25.000	-12.000	10.000	BREF 37.5359 INCHES
(R0Z134)	0A528 B26C9 M7F8 V116E28V8S49	.000	25.000	-12.000	15.000	XTRP 43.5974 INCHES
(R0Z131)	0A528 B26C9 M7F8 V116E28V8S49	-10.000	25.000	-12.000	15.000	YTRP .0000 INCHES
(R0Z130)	0A528 B26C9 M7F8 V116E28V8S49	-15.000	25.000	-12.000	15.000	ZTRP 15.1875 INCHES
						SCALE .0405

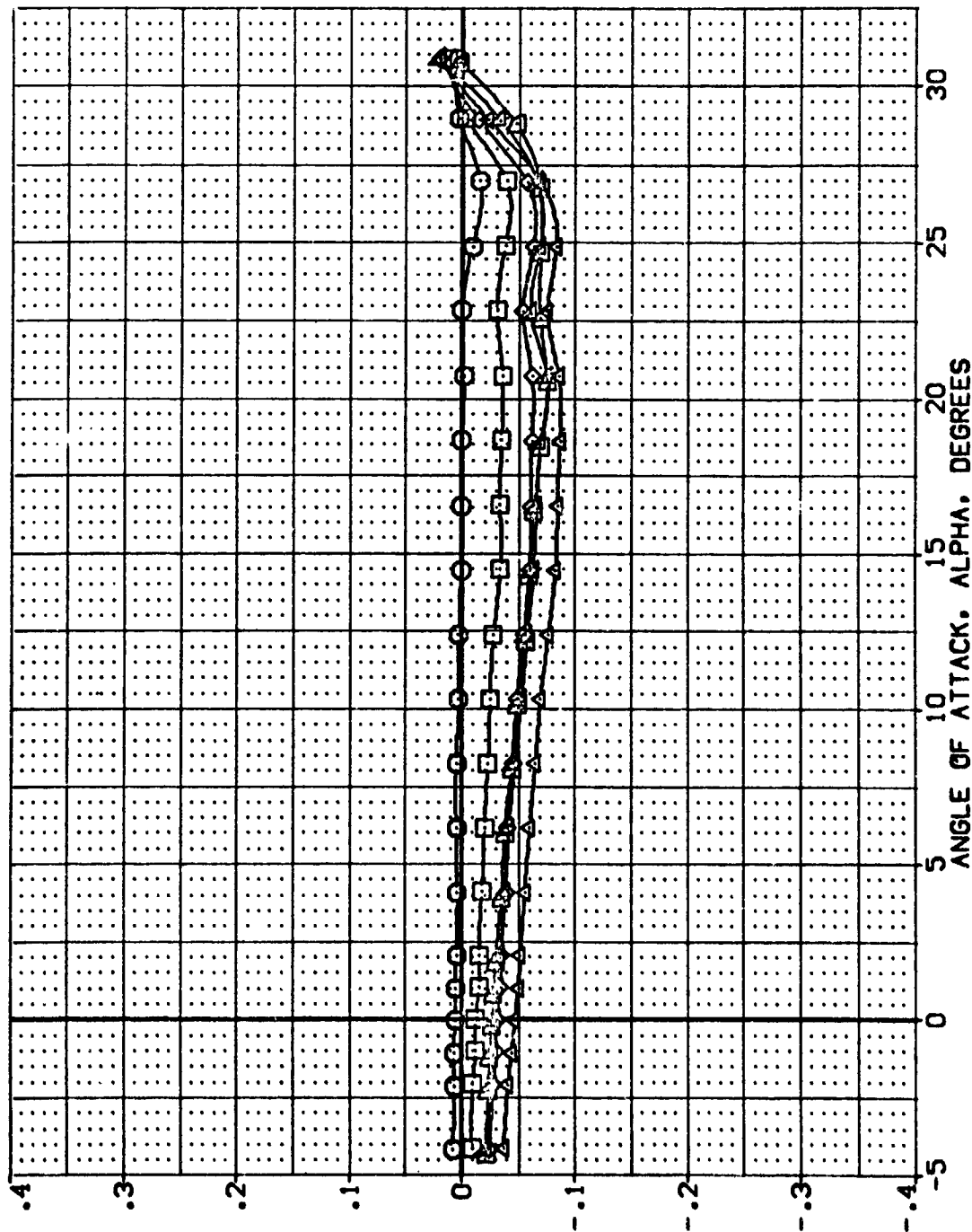


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

(A)MACH = .20

(202117)

**SYNOPSIS**

**ALPHA**

PARAMETRIC VALUES

DATA SOURCE  
MILRON  
000.01  
10.000

DATASET	AIRLON	5.000	15.000
202132			
202134			

4.4119	50 FT.
19.2299	INCHES
37.9359	INCHES
43.5574	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

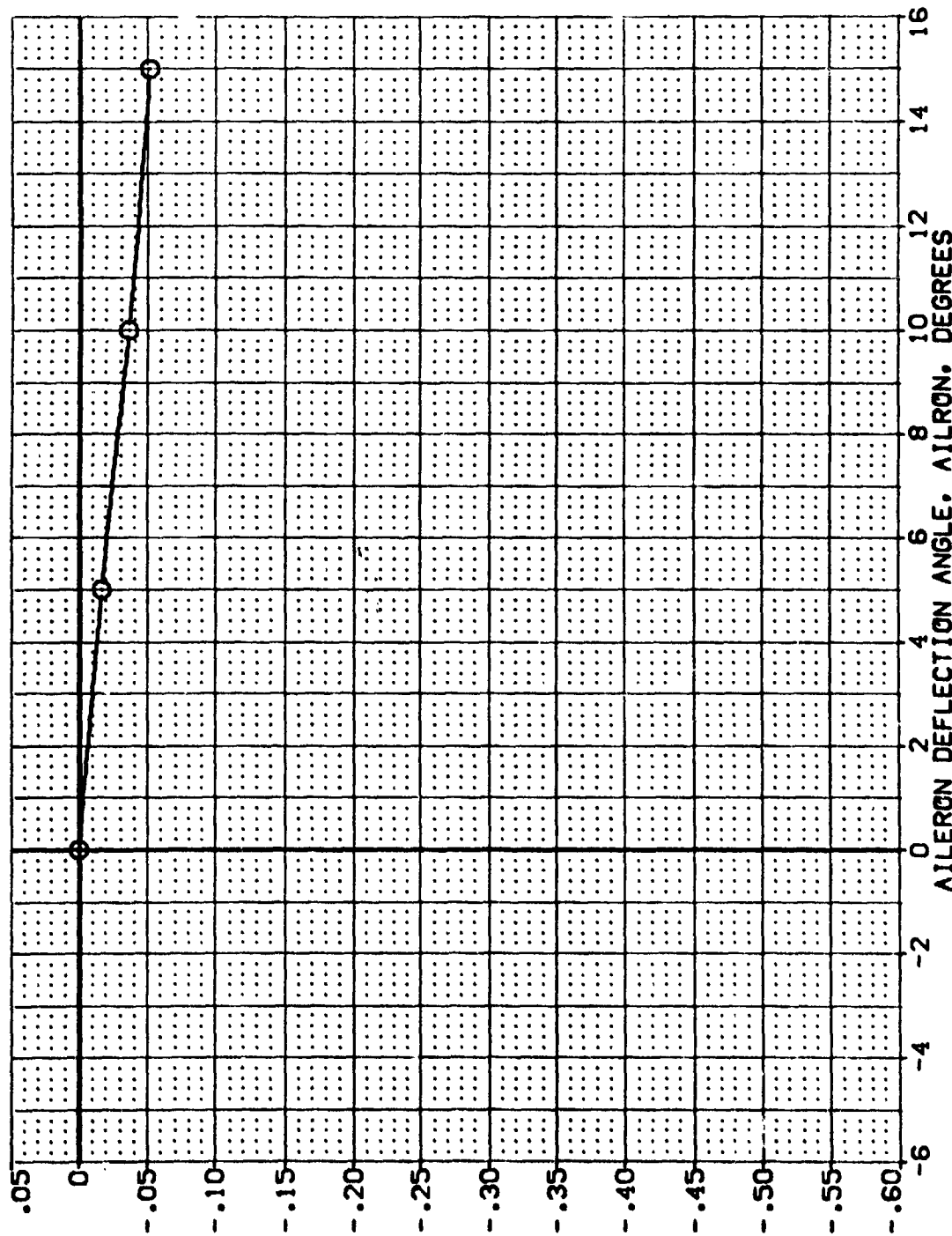


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		WACH	EDFLAP	SPDRK	BETA	.000	DATASET	AILRON	DATASET	AILRON	SPREF	LREF	SCALE
O	5.000	-12.000	25.000			.000	20Z117	.000	20Z132	5.000	4.4118	19.2299	INCHES
						.000	20Z133	10.000	20Z134	15.000	37.9359	43.5974	INCHES
											YMRP	0.000	INCHES
											ZMRP	15.1875	INCHES
											SCALE	.0405	SCALE

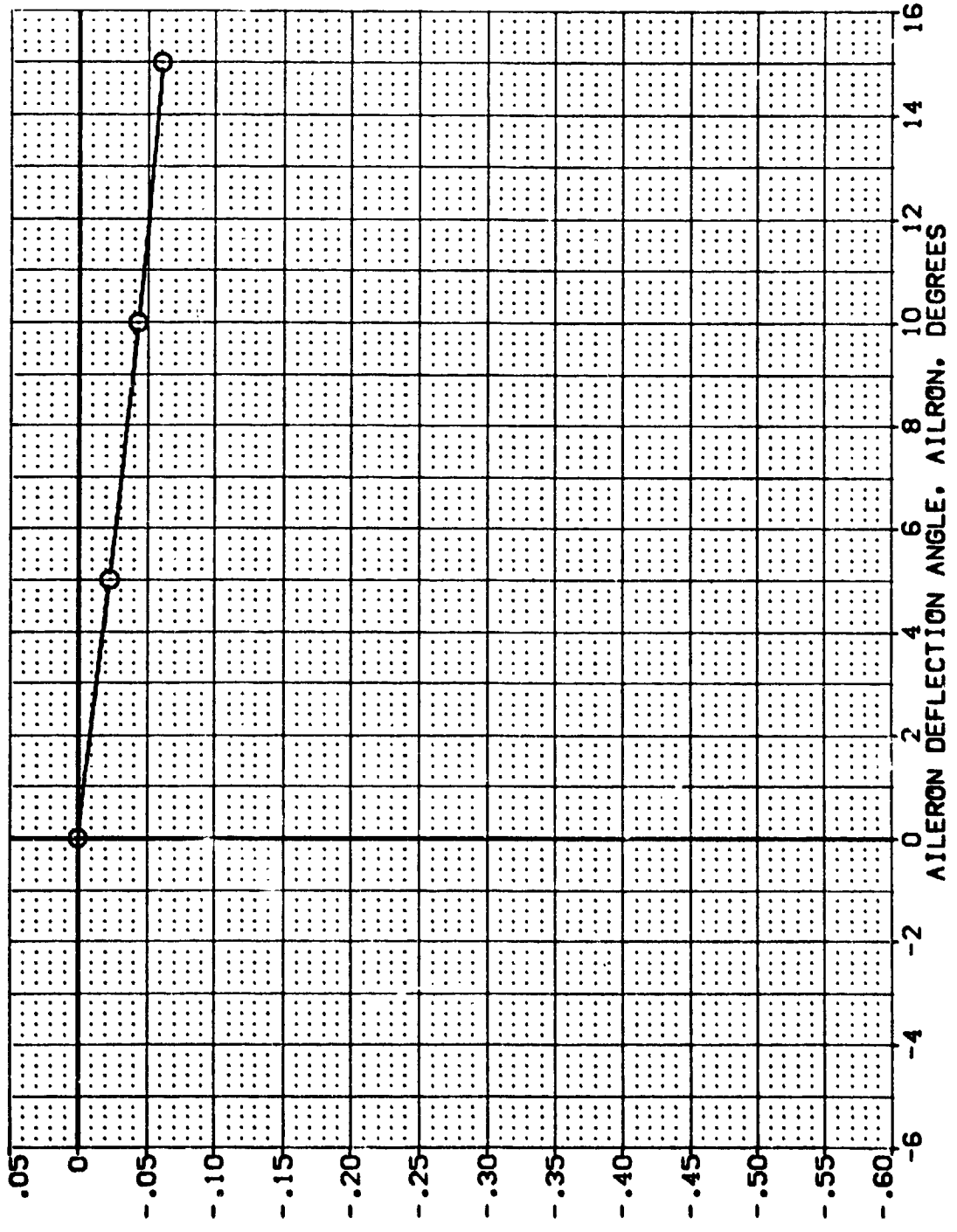


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

01628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	10.000	MACI	.000 DATASET	SREF
		EDFLAP	.000 20Z117	LREF
		SPDRK	.000 20Z133	BREF
				XREF
				YREF
				ZREF
				SCALE
				SO.FT.
				INCHES
				INCHES
				INCHES
				INCHES
				SCALE

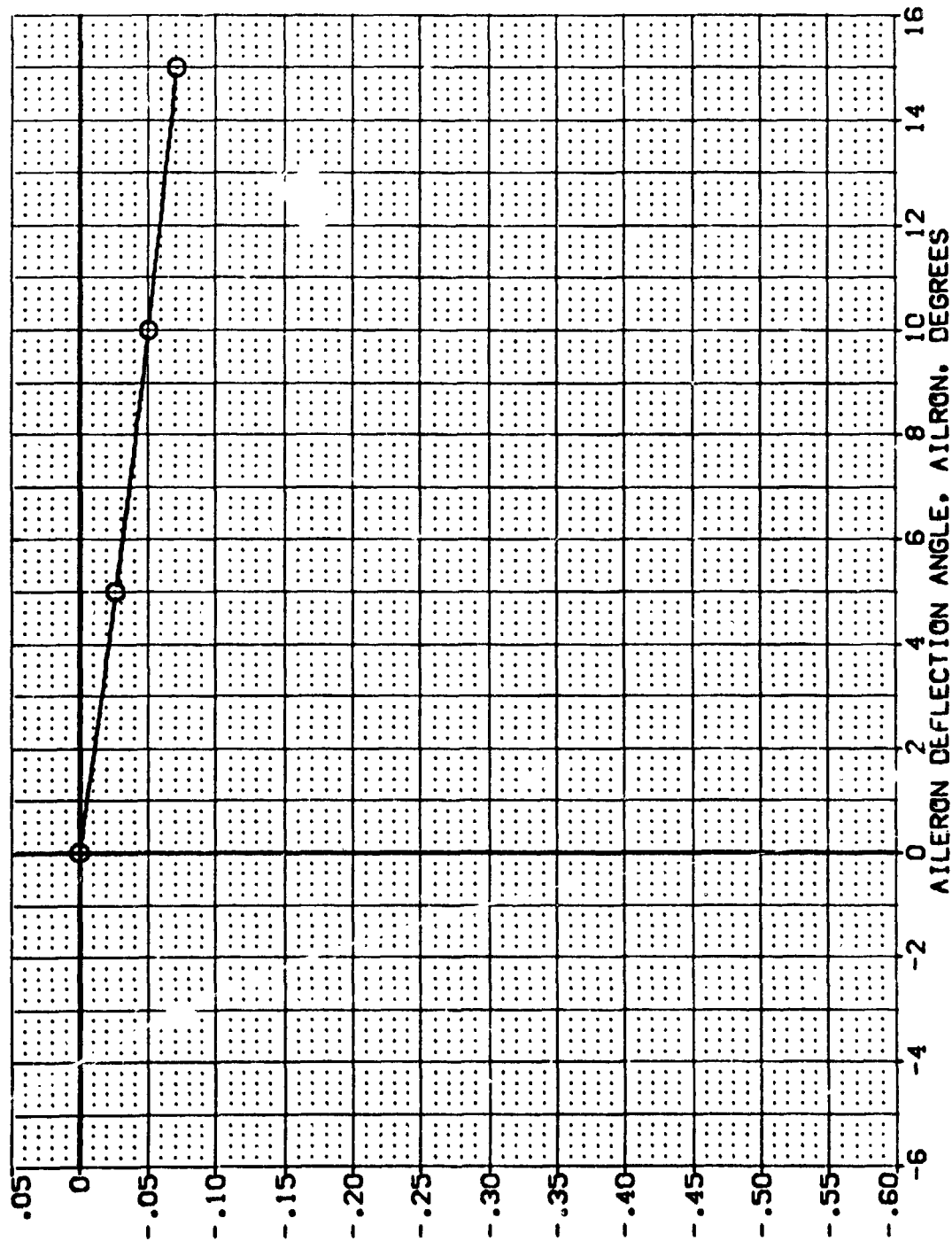


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

Q-30

0A62B B26C9 M7F8 W116E28V8R5X9

(202117)

**ALPHA**  
**15.000**

PARAMETRIC VALUES

DATA SOURCE  
AIRTEL  
10,000  
10,000

DATASET	AIRLION
202132	5.000
202133	15.000
202134	
202135	
202136	
202137	
202138	
202139	
202140	
202141	
202142	
202143	
202144	
202145	
202146	
202147	
202148	
202149	
202150	
202151	
202152	
202153	
202154	
202155	
202156	
202157	
202158	
202159	
202160	
202161	
202162	
202163	
202164	
202165	
202166	
202167	
202168	
202169	
202170	
202171	
202172	
202173	
202174	
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202208	
202209	
202210	
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202220	
202221	
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202228	
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202231	
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202237	
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202239	
202240	
202241	
202242	
202243	
202244	
202245	
202246	
202247	
202248	
202249	
202250	
202251	
202252	
202253	
202254	
202255	
202256	
202257	
202258	
202259	
202260	
202261	
202262	
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202264	
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202282	
202283	
202284	
202285	
202286	
202287	
202288	
202289	
202290	
202291	
202292	
202293	
202294	
202295	
202296	
202297	
202298	
202299	
202300	

REFERENCE INFORMATION

4.4119	50. FT.
19.2289	INCHES
37.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

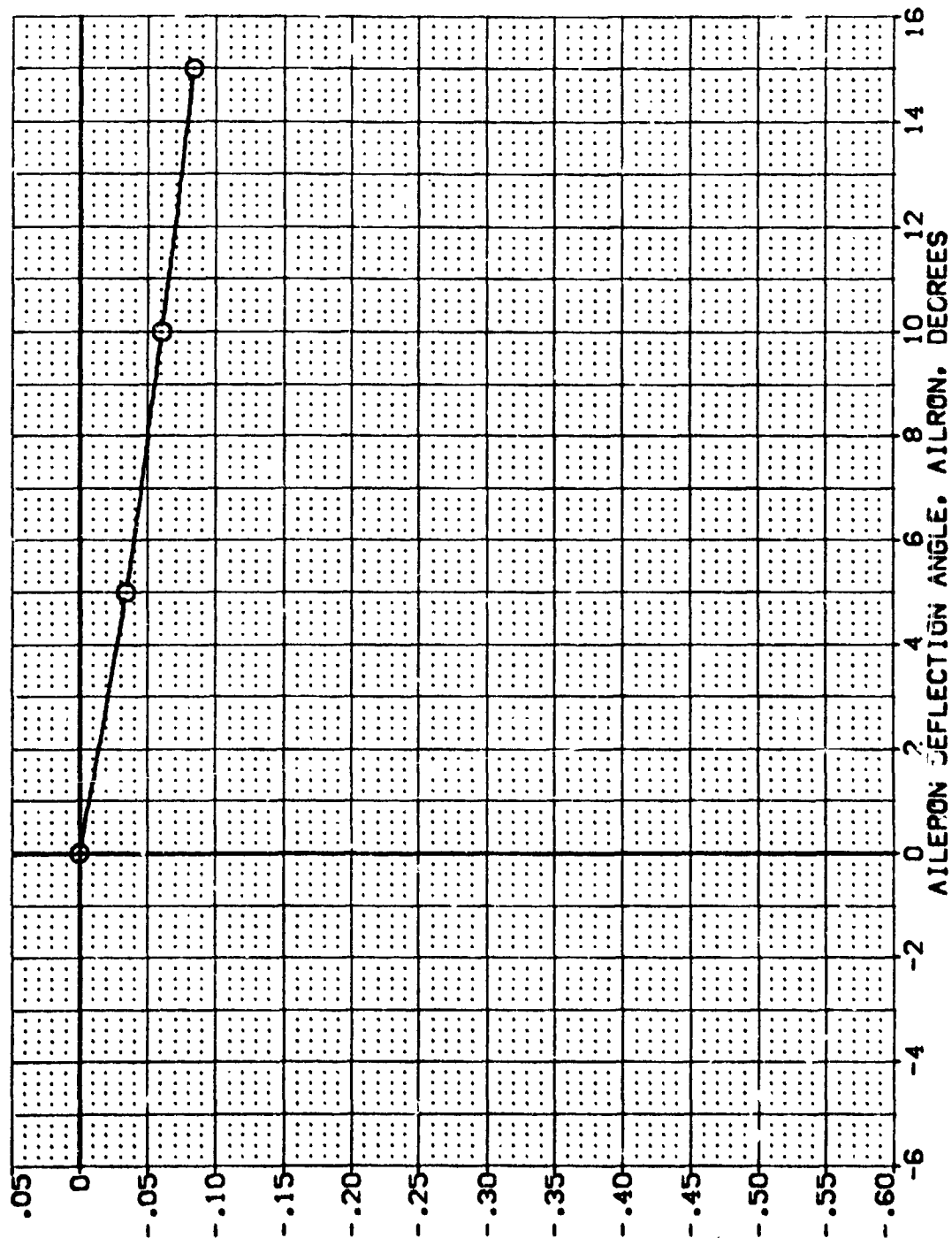
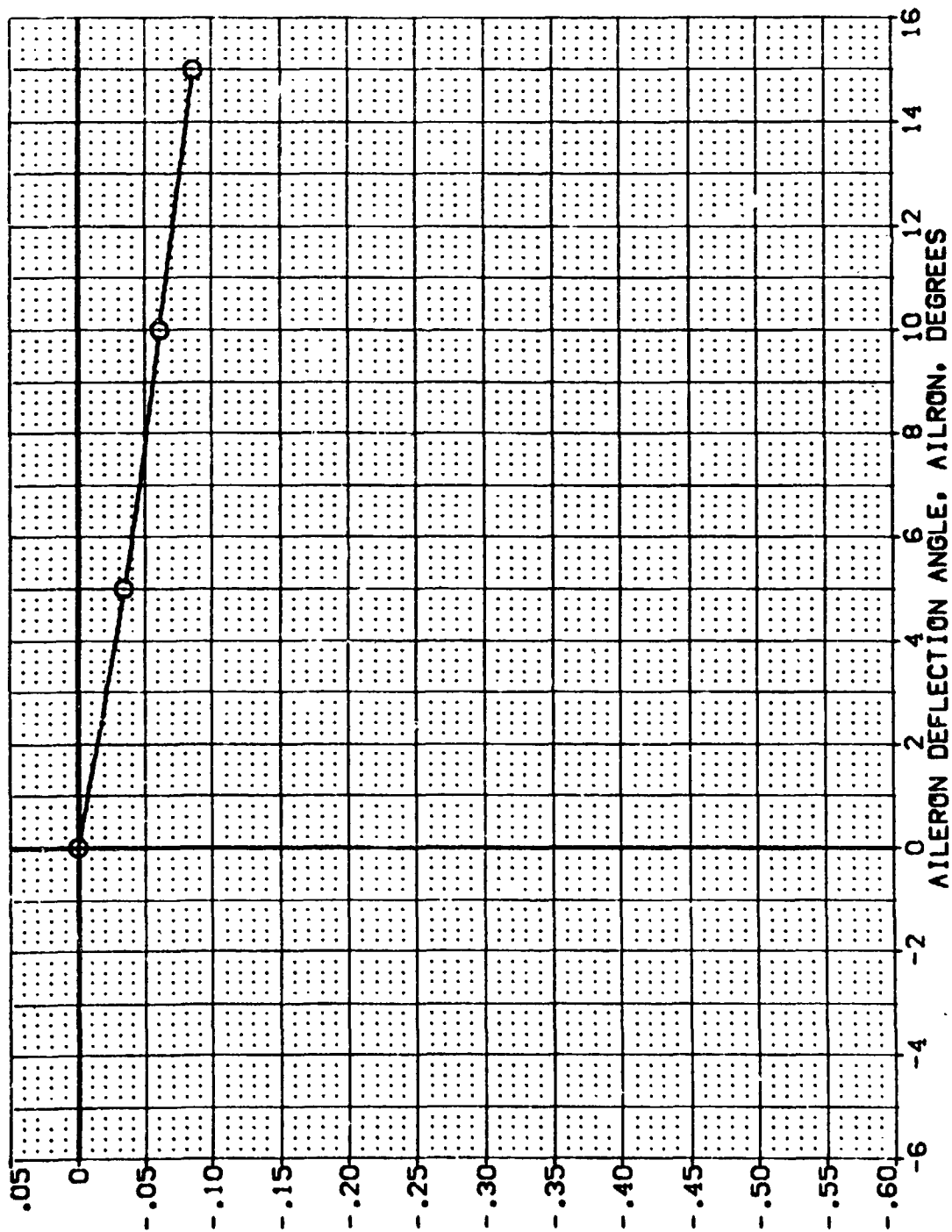


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

**Symbol**



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	25.000	MACH	.200	DELTA	.000	DATA SET	AILRON	SREF	4.4119	SQ.FT.	19.2288
BOFLAP	-12.000	RUDER	.000	20Z117	.000	20Z132	5.000	LREF	37.9359	INCHES	43.5574
SPOBRK	25.000	BETA	.000	20Z133	10.000	20Z134	15.000	SREF	.0000	INCHES	.0000
								YPRP	15.1875	INCHES	.0405
								ZPRP		SCALE	

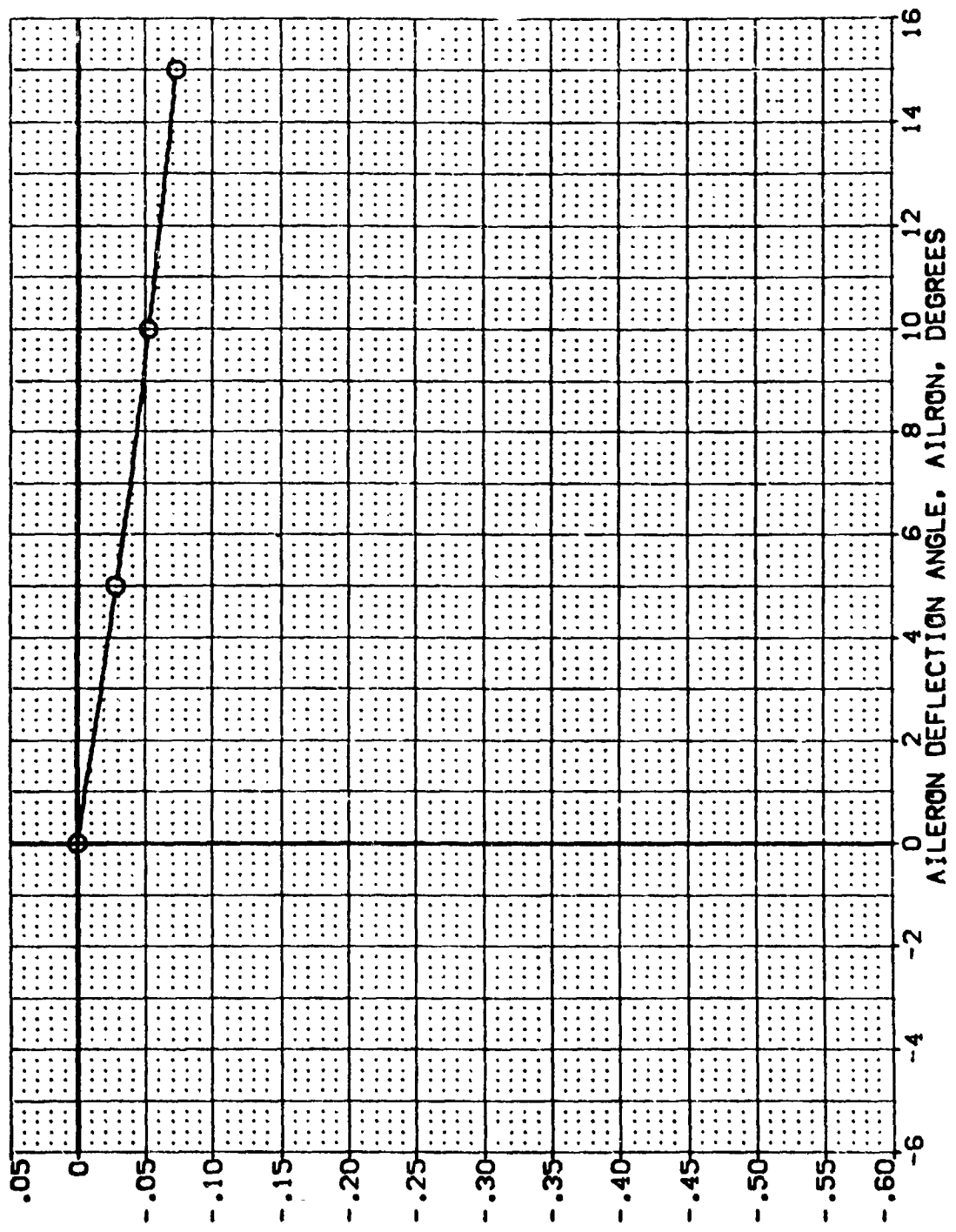


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)  
 SYMBOL ALPHA 20.000 MACH .200 DELTA .000 DATASET 20Z117 AILRON 15.000 REF 90.000  
 BOFLAP -12.000 RUDDER 25.000 BETA .000 DATASET 20Z134 AILRON 15.000 REF 90.000  
 SPDRK 25.000 BETA .000 DATASET 20Z134 AILRON 15.000 REF 90.000  
 REFERENCE INFORMATION  
 4.4118 19.2733 37.5559 43.5574 15.0000 15.1875 15.0405  
 INCHES INCHES INCHES INCHES INCHES INCHES INCHES  
 SCALE

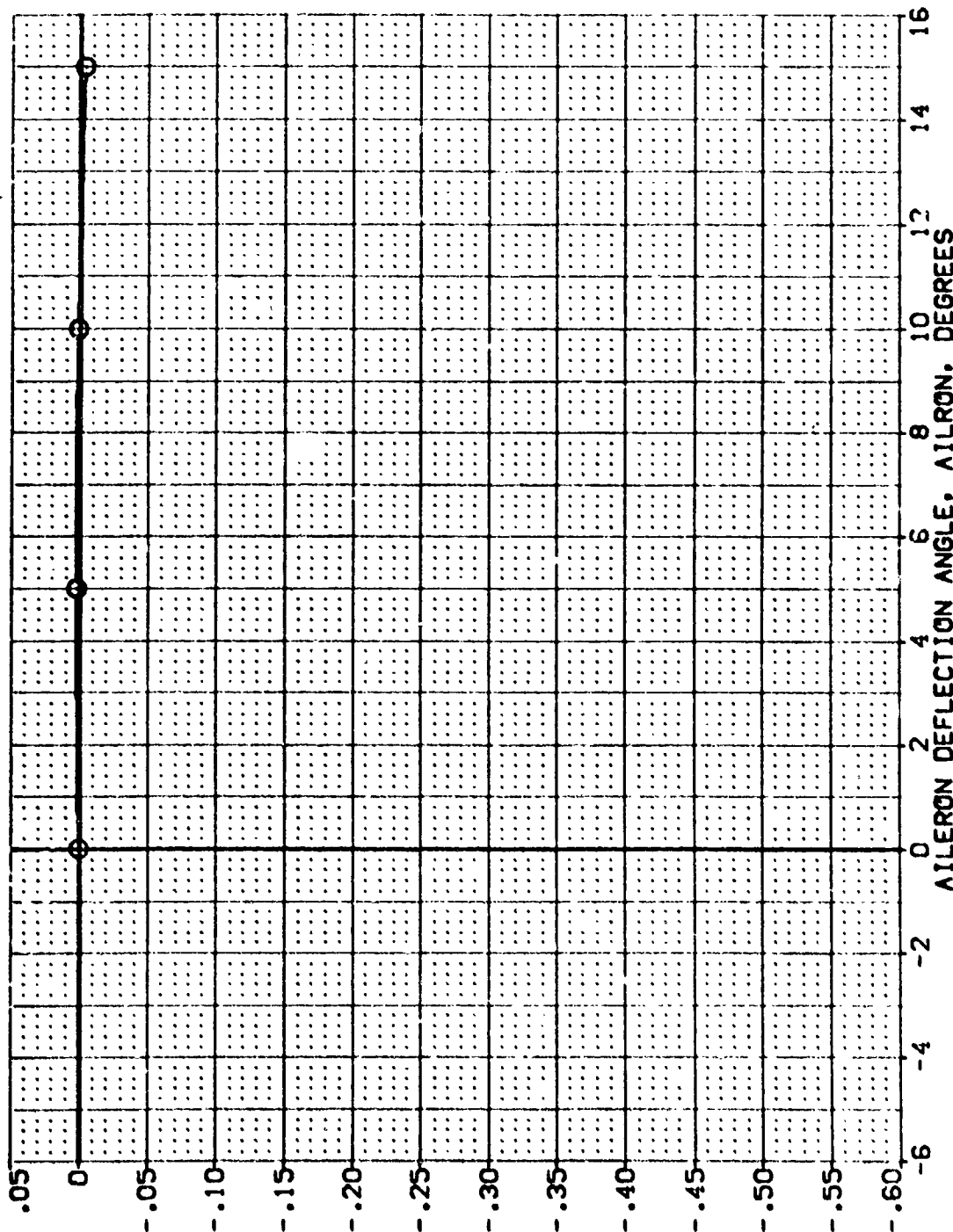


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE



(20Z117)

0A628 826C9 M7F8 W116E28V8R5X9

SYMBOL		ALPHA	MACH		BOFLAP		SPDRBK		PARAMETRIC VALUES		DATA SOURCE		DATASET		AILRON	SREF	REFERENCE INFORMATION	
O		.000	.200		DELTON		.000		.000		20Z117		5.000	REF	4.1119	50.FT.		
			-12.000		RUDDER		.000		.000		20Z132		15.000	REF	19.2289	IN-OES		
			25.000		BETA		.000		.000		20Z139			REF	37.9359	IN-OES		
														YPRP	43.5574	IN-OES		
														ZPRP	15.0000	IN-OES		
														SCALE	15.1875	IN-OES		
															.0405	SCALE		

**[202117]**

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REFERENCE INFORMATION

4.4113	SC.FT.
19.2289	IN.OES
37.9039	IN.OES
43.5974	IN.OES
0.0000	IN.OES
15.1875	IN.OES
.0405	SCALE

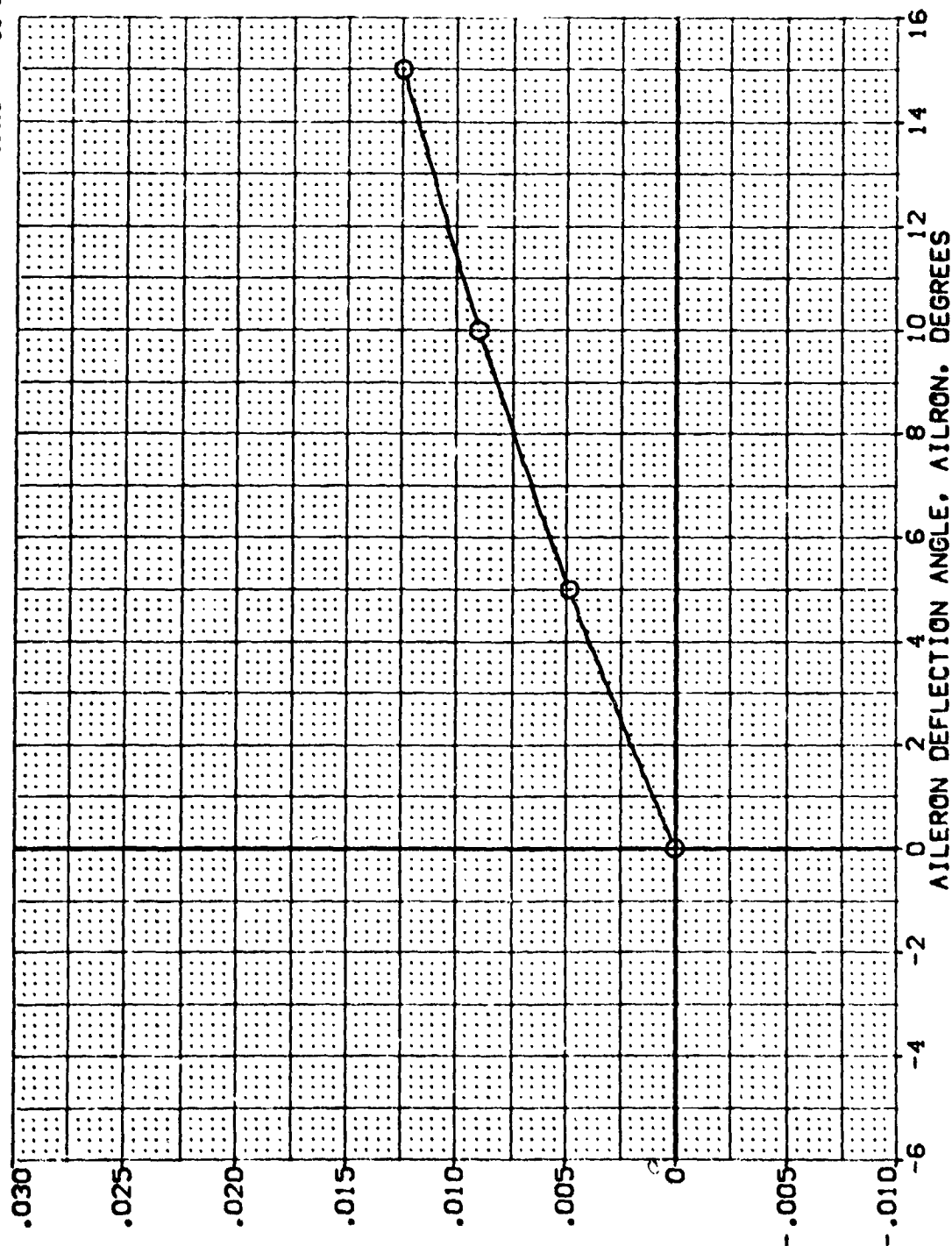


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

(20Z117)

0A628 B26C9 M7F8 W116E28V8PSX9

PARAMETRIC VALUES				DAT SOURCE				REFERENCE INFORMATION			
ALPHA	10.000	MACH	.200	DELTON	.000	DATASET	AILRON	SREF	4.4119	SO.FT.	
BOFLAP	-12.000	RUDDER			.000	20Z117	5.000	LREF	19.2299	INCHES	
SPOBRK	25.000	BETA			10.000	20Z134	15.000	SREF	37.9359	INCHES	
								XREF	43.5874	INCHES	
								YREF	.0000	INCHES	
								ZREF	15.1873	INCHES	
								SCALE	.0405	SCALE	

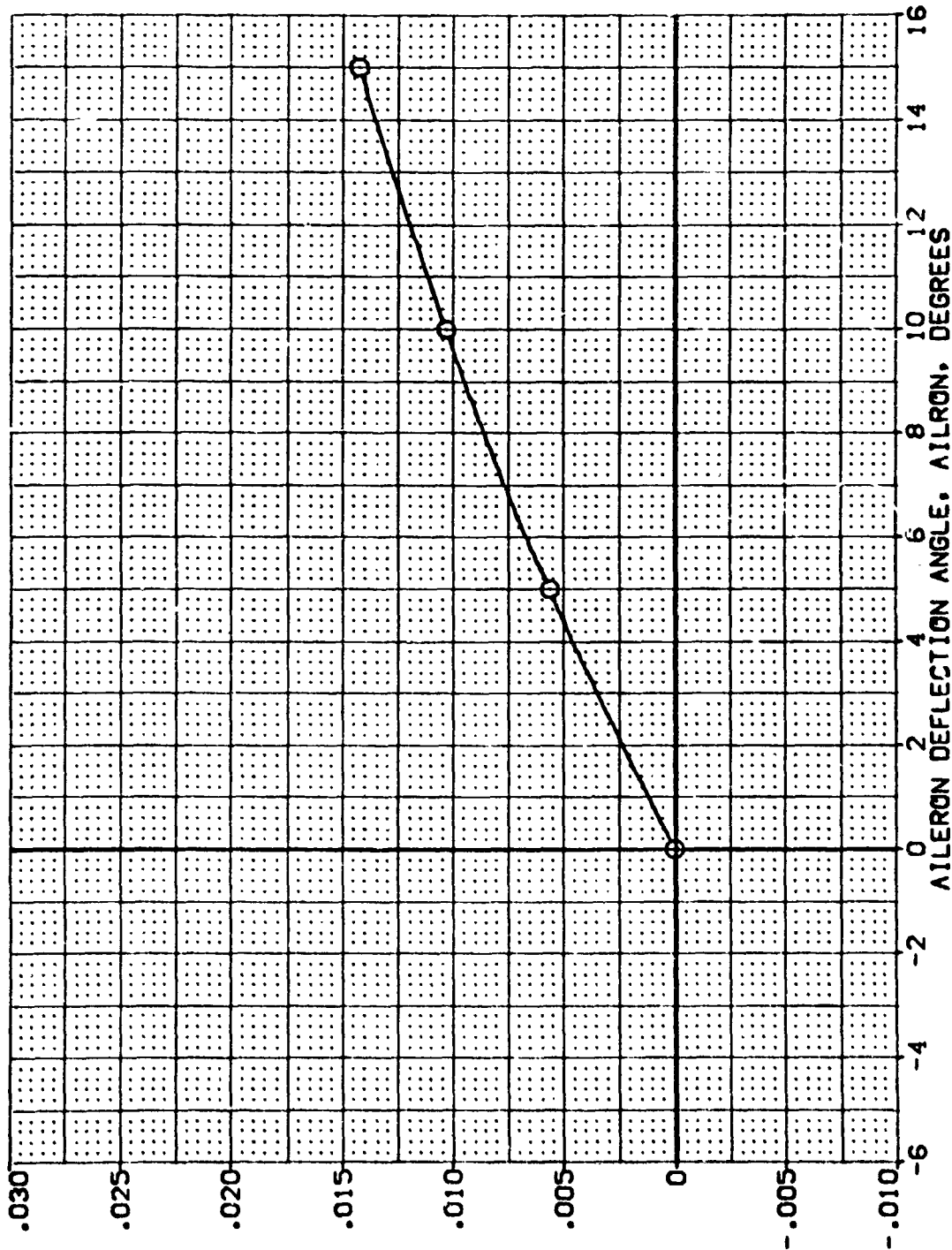


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

(20Z117)

W116E28V8R5X9

M7F8

B26C9

0A628

SYMBOL	ALPHA	MACH	BOFLAP	STUBK	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	15.000				.200 DELVEN	AILRON	REF
					-12.000 RUDDER	20Z117	19.2239 INCHES
					25.000 BETA	20Z130	37.5359 INCHES
						20Z134	43.5874 INCHES
							15.1875 INCHES
							SCALE
							.0405

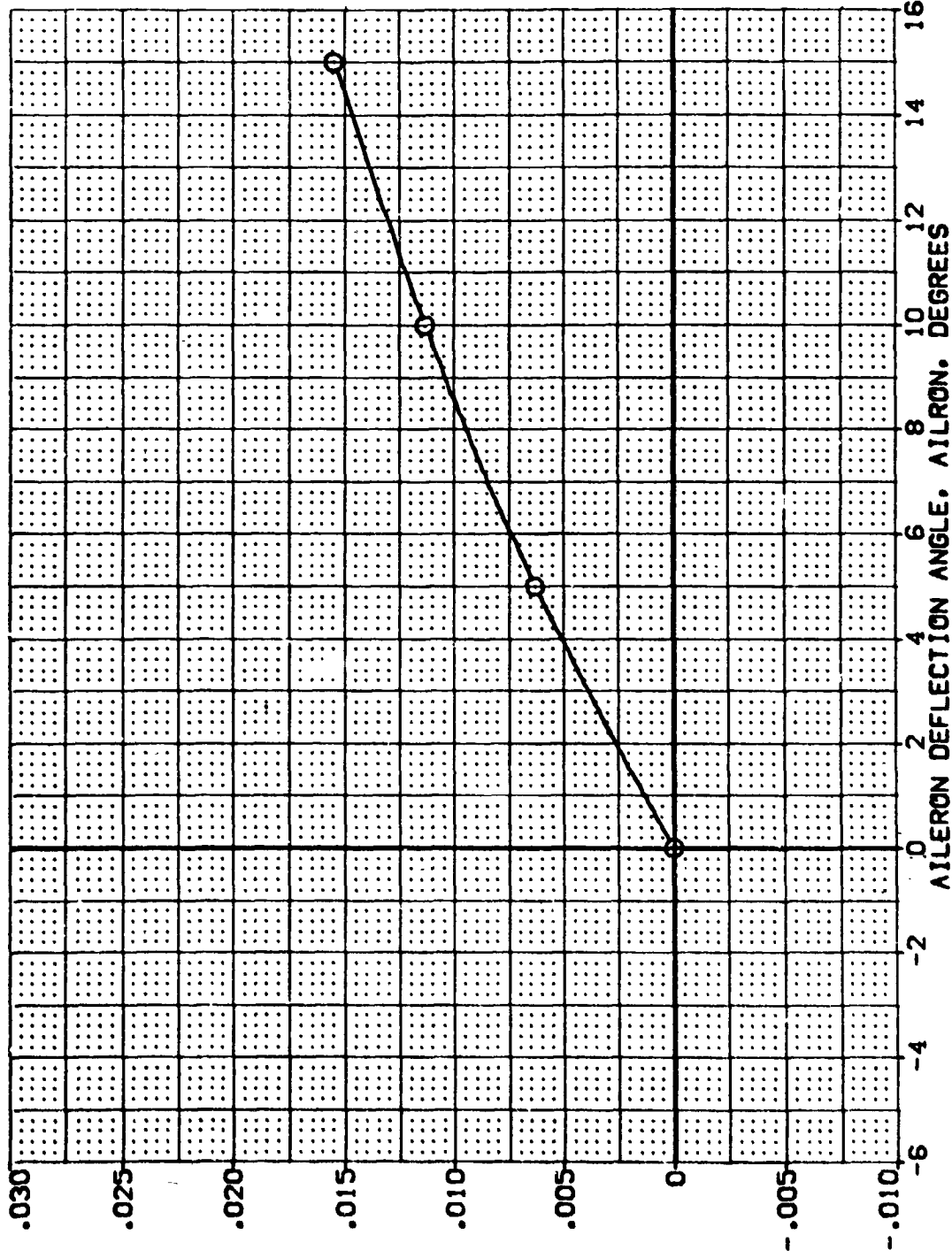


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
	ALPHA	MACH	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA
O	20.000	0.200	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA
		-12.000	RUDDER	RUDDER	RUDDER	RUDDER	RUDDER	RUDDER	RUDDER
		25.000	BETA	BETA	BETA	BETA	BETA	BETA	BETA

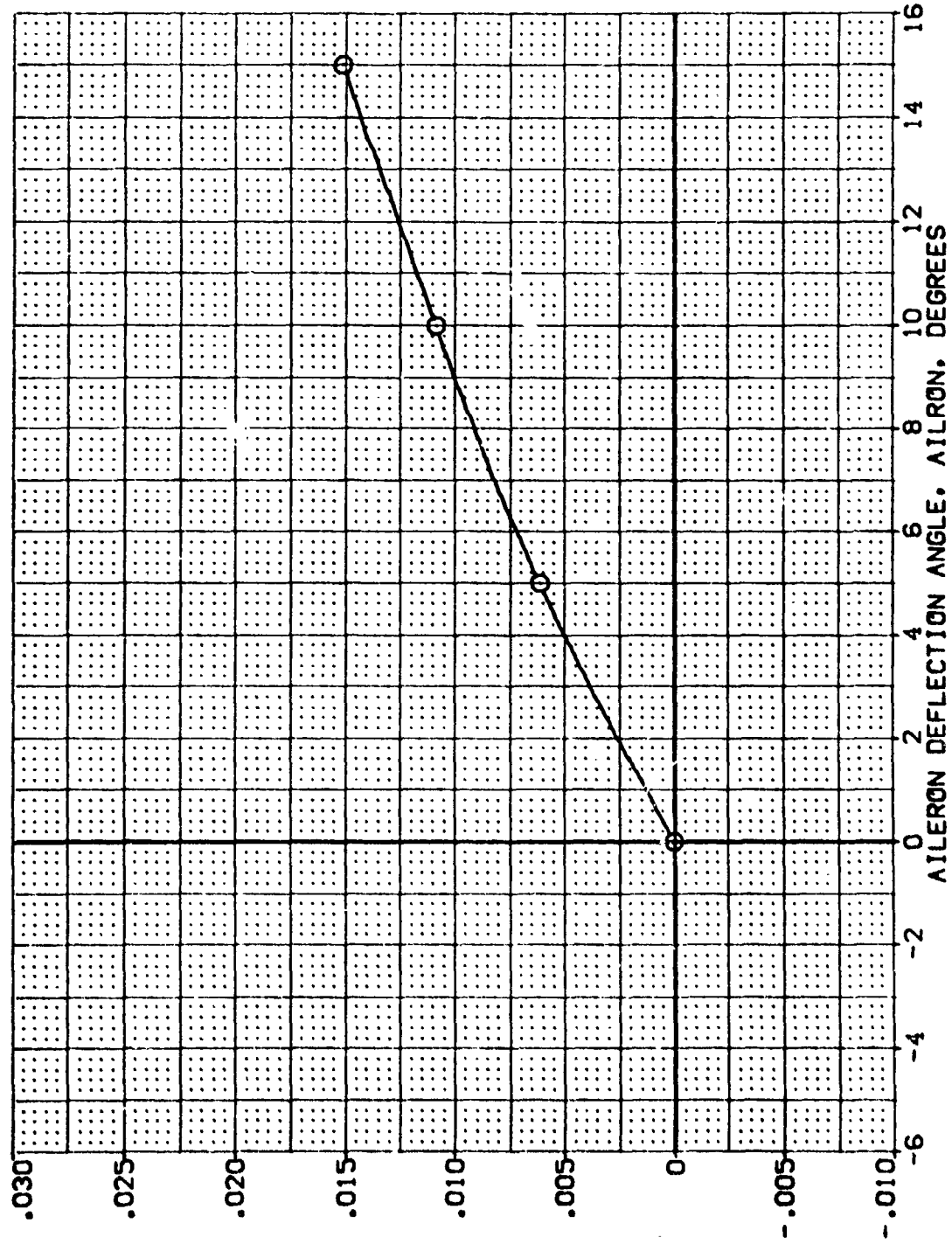


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	25.000	MACH	.200	DELTA	.000	DATA SET	AILRON	REF	SO. FT.
BOFLAP	-12.000	RUDER	.000	20Z117	.000	20Z132	5.000	REF	INCHES
SPDRK	25.000	BETA	.000	20Z133	10.000	20Z134	15.000	REF	INCHES
								XREF	INCHES
								YREF	INCHES
								ZREF	INCHES
								SCALE	SCALE

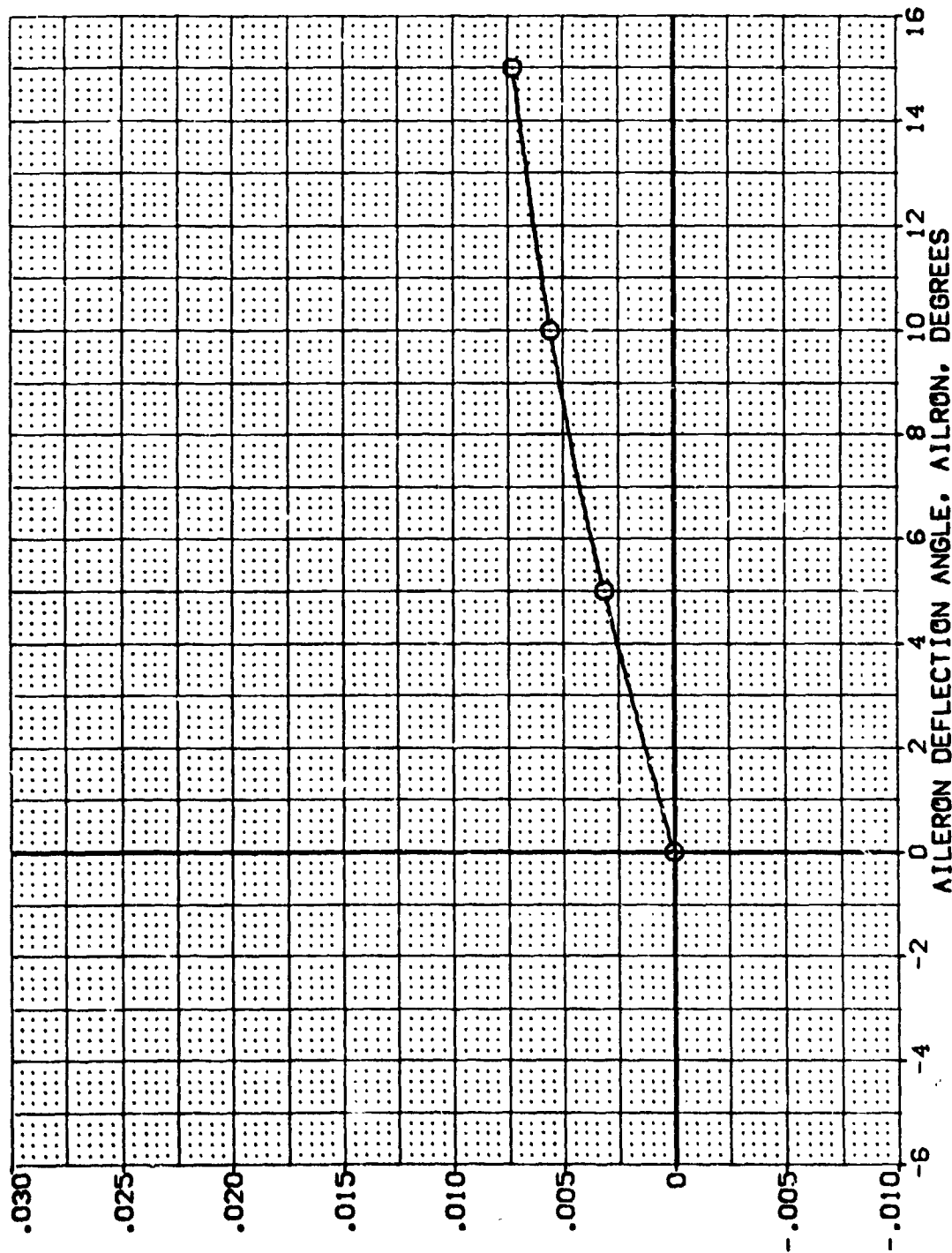


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE



DA628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	20.000	.000	20Z117	AIIRON	5.000
WACH	.200	.000	20Z117	REF	19.2259
EDFLAP	-12.000	.000	20Z117	REF	37.5359
SPDRK	25.000	.000	20Z117	REF	43.5974
				REF	15.0000
				REF	15.1875
				REF	.0405

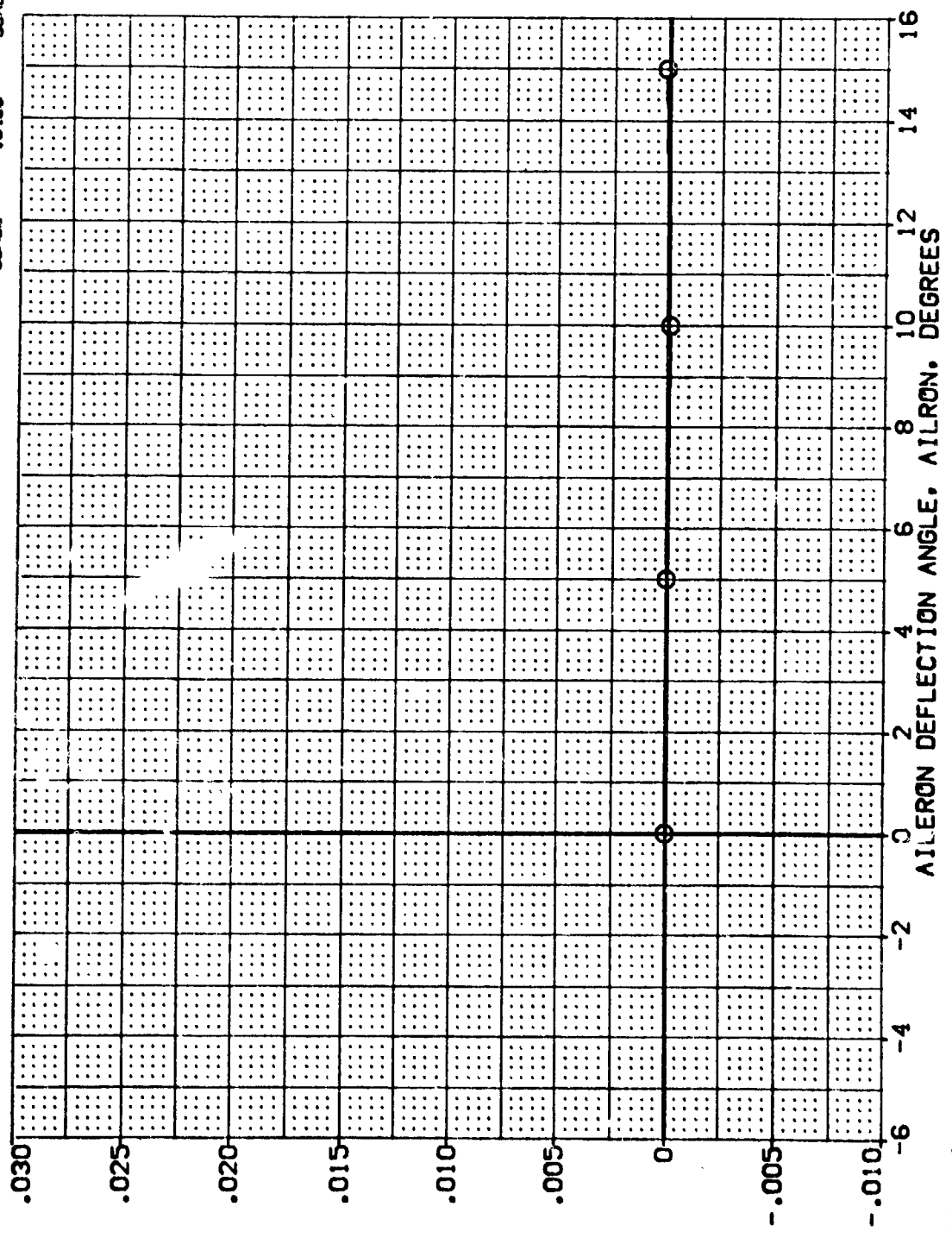


FIG 48 AIIRON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116:28V8R5X9 (20Z117)  
 SYMBOL ALPHA .000  
 MACH .200  
 BDFLAP -12.000  
 SPOBRK 25.000  
 PARAMETRIC VALUES  
 DELVON .000  
 RUDDER .000  
 BETA .000  
 DATA SOURCE  
 AILRON 10.000  
 DATASET 20Z117  
 DATASET 20Z133  
 DATASET 20Z134  
 AILRON 5.000  
 AILRON 15.000  
 REFERENCE INFORMATION  
 SPREF 4.4118  
 LREF 19.2259  
 BREF 37.9359  
 XREF 43.5974  
 YREF 15.0000  
 ZREF 15.1875  
 SCALE .0405  
 90 FT. INCHES  
 19.2259 INCHES  
 37.9359 INCHES  
 43.5974 INCHES  
 15.0000 INCHES  
 15.1875 INCHES  
 .0405 SCALE

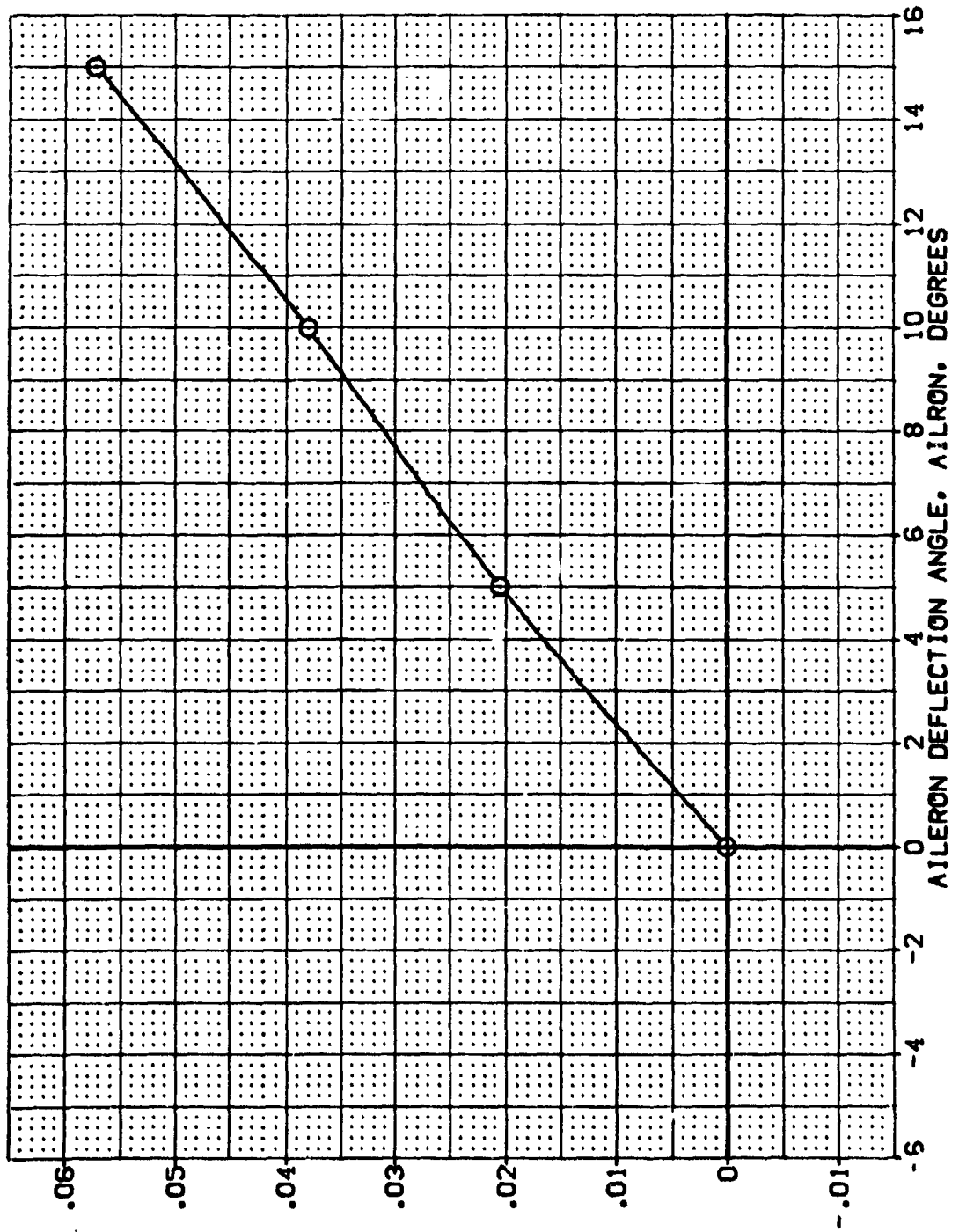
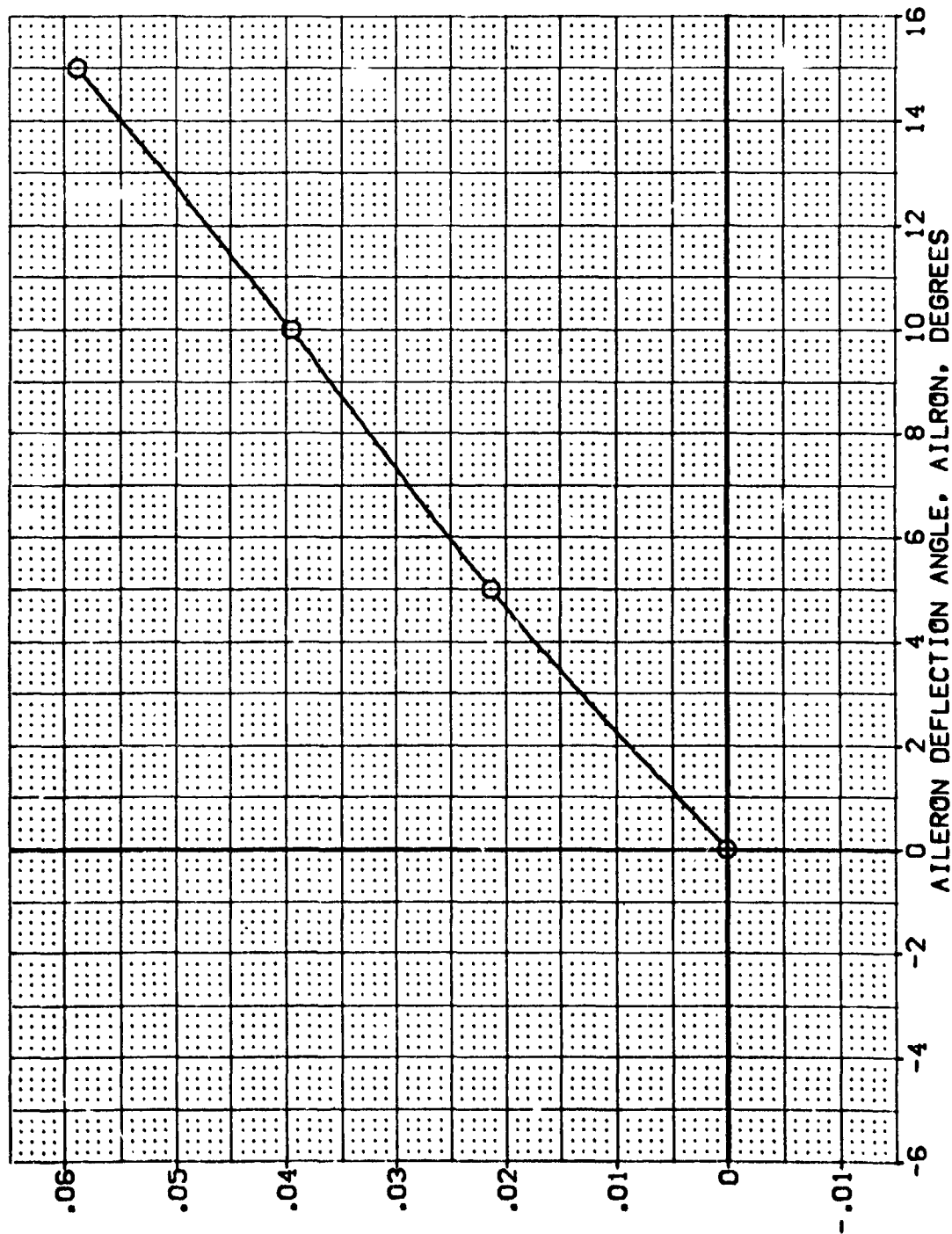


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE



0A62B B26C9 M7F8 W116E28V8R5X9 (20Z117)  
 SYMBOL ALPHA 5.000  
 PARAMETRIC VALUES  
 MACH .200 DELVON  
 BDFLAP -12.000 RUDDER  
 SPOBRK 25.000 BETA  
 DATA SOURCE  
 AILRON 10.000  
 DATASET 20Z117  
 DATASET 20Z133  
 DATASET 20Z134  
 AILRON 5.000  
 AILRON 15.000  
 REF LREF 4.4119  
 REF 19.2258  
 REF 37.5558  
 REF 43.5574  
 YMRP .0000  
 ZMRP 15.1875  
 SCALE .0405  
 REFERENCE INFORMATION  
 SQ.FT. 50.1  
 INCHES 19.2  
 INCHES 37.6  
 INCHES 43.6  
 INCHES .000  
 INCHES 15.2  
 SCALE .0405



INCREMENTAL ROLLING MOMENT COEFFICIENT, DCBL

FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	10.000				
		BDFLAP	.000	AILRON	SO.FT.
		SPDRK	.000	20Z117	4.4119
			.000	20Z133	19.2388
			.000	20Z134	37.9359
					43.5574
					.0000
					15.1875
					.0405
					SCALE

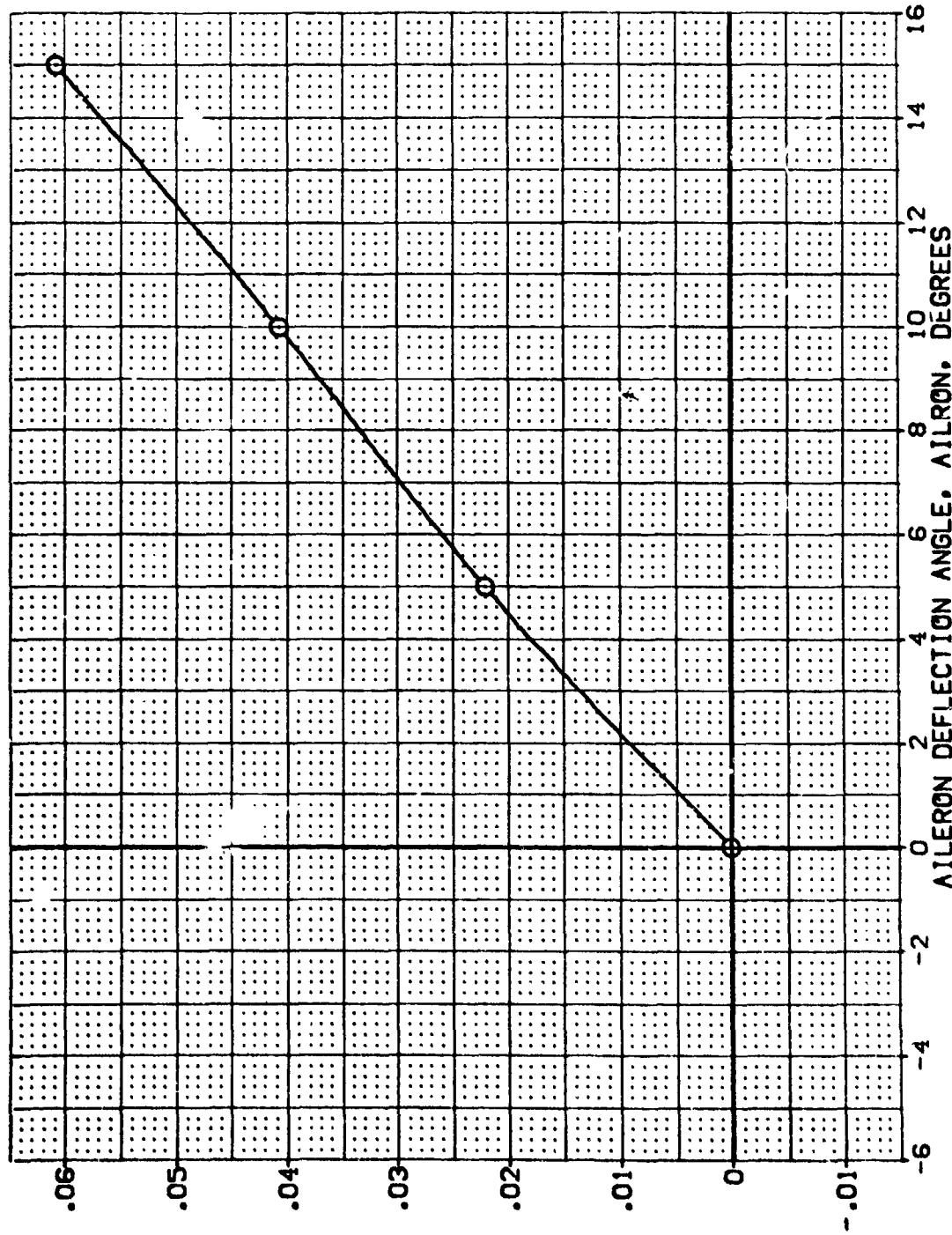


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

CA

4.4119	SO.FT.
19.2299	INCHES
37.9359	INCHES
43.5574	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE



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0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	AILRON	REF	REFERENCE INFORMATION
O	20.000		.200 DELVON	.000	20Z117	5.000	4.4119	50.FT.
		BOFLAP	-12.000 R7DER	.000	20Z117	5.000	19.2299	INCHES
		SPOBRK	25.000 S/LA	.000	20Z133	15.000	37.9359	INCHES
							43.5974	INCHES
							15.0000	INCHES
							15.1875	INCHES
							.0405	SCALE

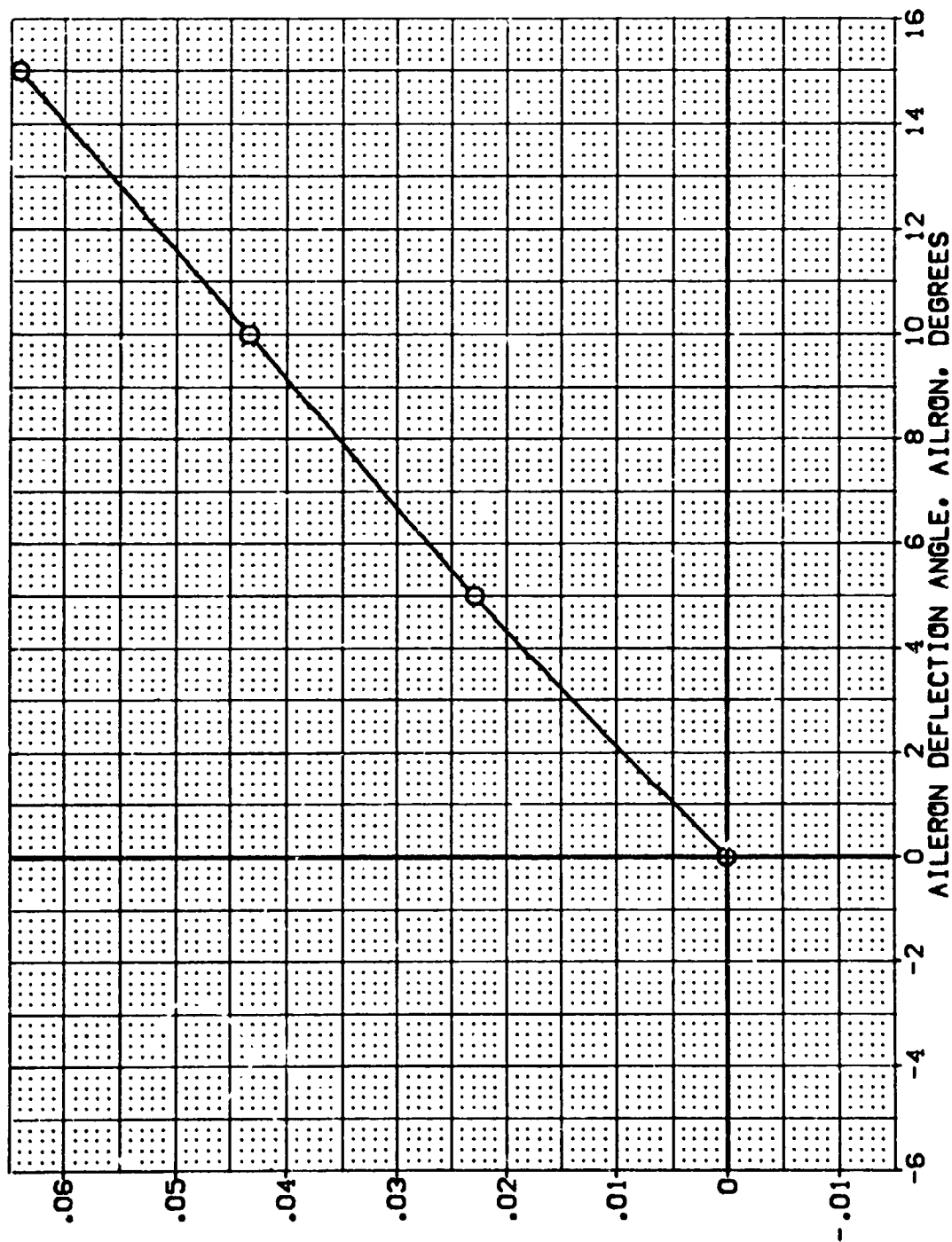


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE



SYMBOL ALPHA 25.000 MACH .200 DELVON .000 DATASET 202117 AILRON 5.000 REF 4.4119 50.57  
0 25.000 BOTLAP -12.000 RUDDER .000 202117 10.000 LREF 19.2259 INCHES  
SPDRK 25.000 BETA .000 202132 5.000 BRPF 37.5359 INCHES  
W116E28V8R5X9 M7F8 W116E28V8R5X9 (202117) DATASET 202134 15.000 XMRP 43.5974 INCHES  
DATA SOURCE AILRON 10.000 YMRP .0000 INCHES  
PARAMETRIC VALUES ZMRP 15.1875 INCHES  
SCALE .0405

INCREMENTAL ROLLING MOMENT COEFFICIENT, DCBL

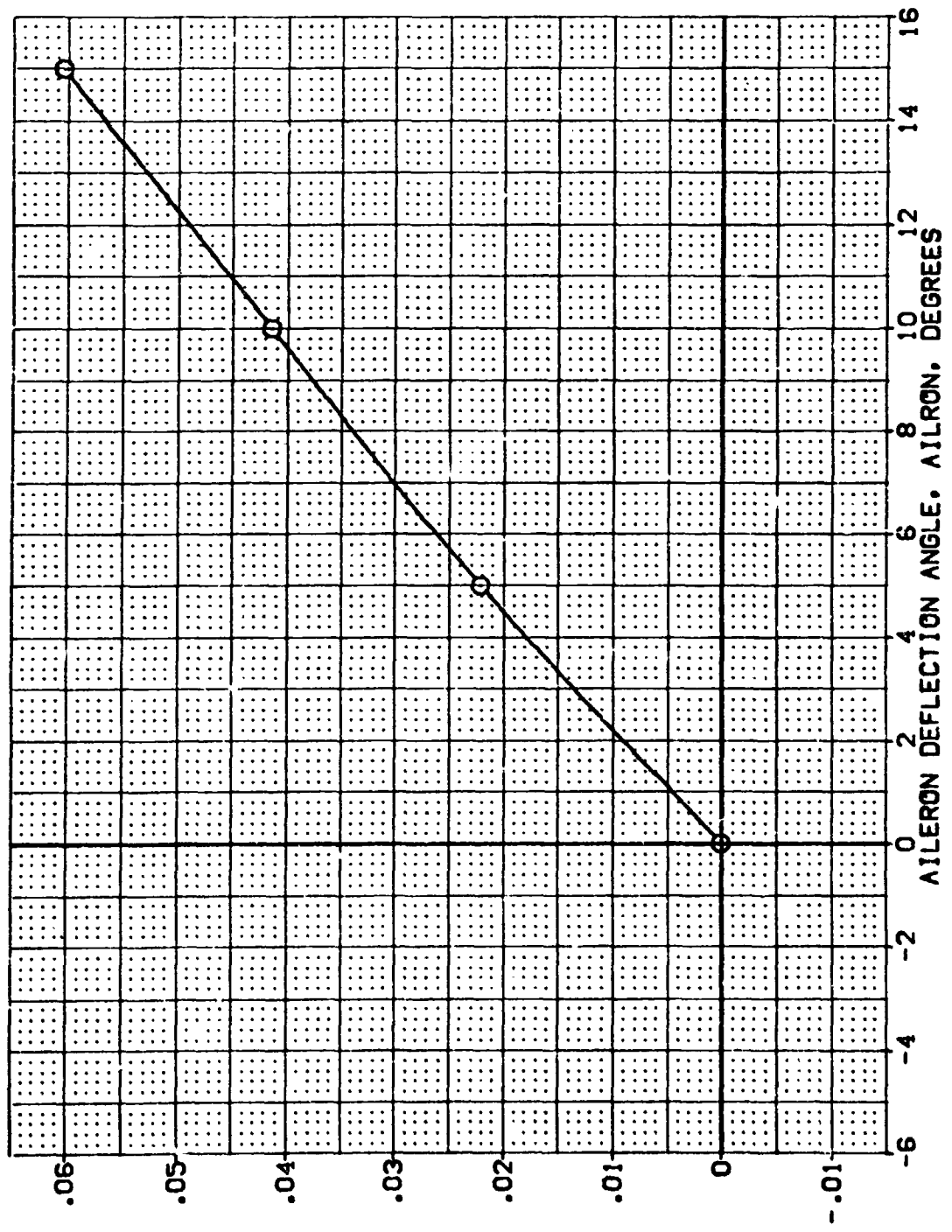


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V895X9 (20Z117)

SYNOPSIS ALPHA 20.0000

**ALPHA**  
**20.000**

MACH	.200	DELTON	RUDER	BETA
BOFLAP	-12.000			
SPOBRK	25.000			

**HOW**

**HOW**

**WCH**

**2011**

**PARAPETRO .200**

**MAGNETRIC**  
**.200**

WALTER  
BETTMAN

## NOTES

WALTER  
SUTHERLAND

**DATA SOURCE**  
**ALLIUM**

**DATA  
ACTION**

## DATA SOURCES

## DATASET

## DATA SET

**DATASET A**

**2009**

10

100

REFERENCE INFORMATION  
4.4113 SQ.FT.

REFERENCE INFORMATION  
4.4113 80.FY.

REFERENCE INFORMATION  
4.4113 50.57;

REFERENCE INFORMATION  
4.4113 80.FT.

REFERENCE INFORMATION  
4.4113 80.FY.

REFERENCE INFORMATION  
4.4119 80.FT.

REFERENCE INFORMATION  
4.4113 SQ.FT.

REFERENCE INFORMATION  
4.4113 SQ.FT.

REFERENCE INFORMATION  
4.4113 80.FT;

REFERENCE INFORMATION  
4.413 82.FY;

REFERENCE INFORMATION  
4.4113 80.FT.

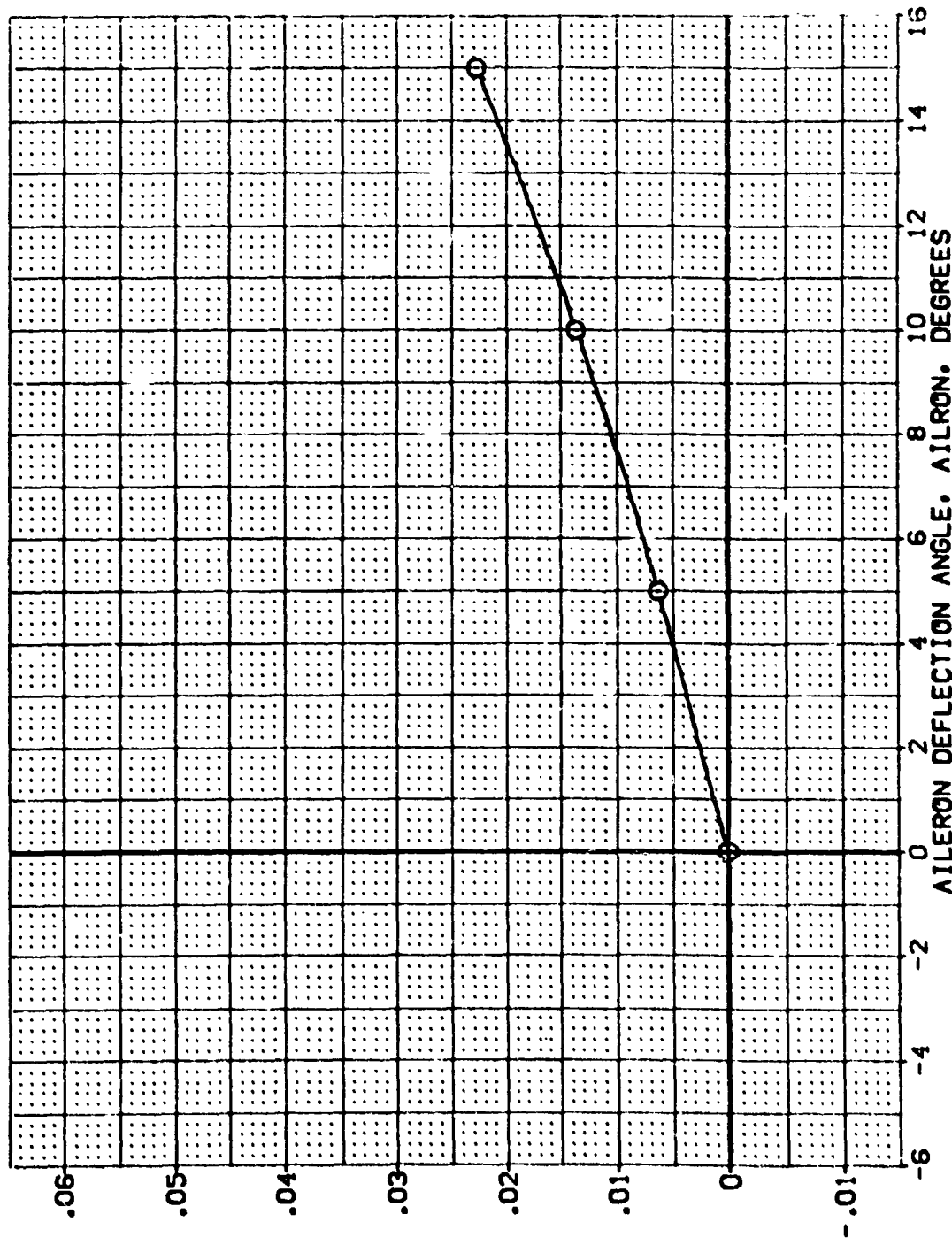
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4.4113 80.FT.

REFERENCE INFORMATION  
4.4113 80.FT.

REFERENCE INFORMATION  
4.4113 50.FT.

REFERENCE INFORMATION  
4.4113 50.FT.

REFERENCE INFORMATION  
4.4113 80.FT.



**FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE**



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION	
		MACH	DELTA	DELTA	DELTA	AILRON	AILRON	REF	SCALE
O	.000	.200	.000	.000	.000	10.000	5.000	4.119	90.000
		80FLAP	-12.000	20Z117	.000	.000	15.000	19.225	10.000
		SPORAK	25.000	20Z133	.000	10.000	15.000	37.939	10.000
								43.597	10.000
								.000	10.000
								15.187	10.000
								.0405	10.000

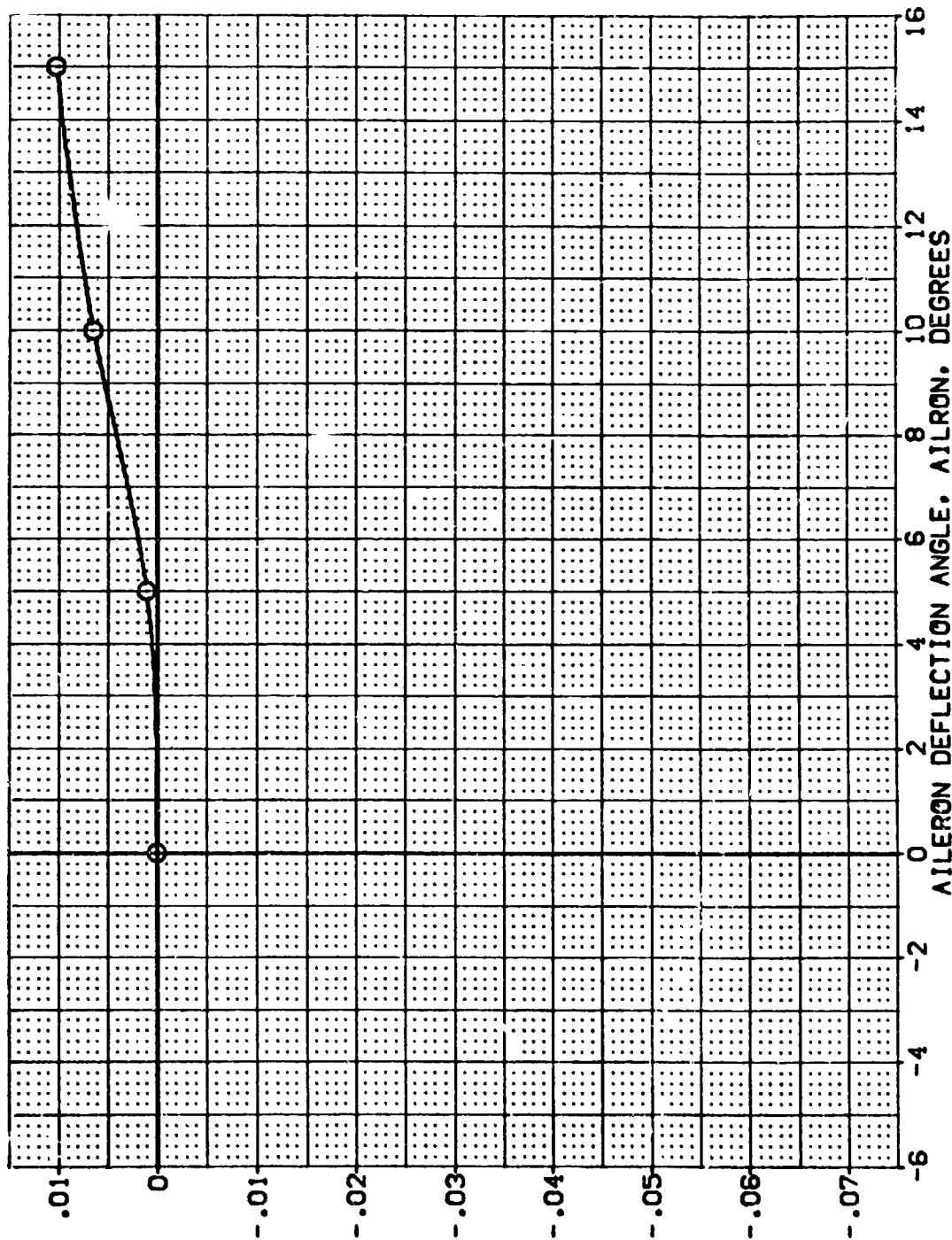


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	AILRON	DATASET	AILRON	SREF	REFERENCE INFORMATION
O	5.000	80FLAP	.200 DELVON	.000	20Z117	10.000	20Z132	5.000	LREF	4.4119
		SPDRK	-12.000 RUDDER	.000	20Z133	10.000	20Z134	15.000	SREF	19.2259
			25.000 BETA	.000					XMRP	37.9359
									YMRP	43.5974
									ZMRP	.0000
									SCALE	15.1875
										NO-ES
										NO-ES
										NO-ES
										SCALE

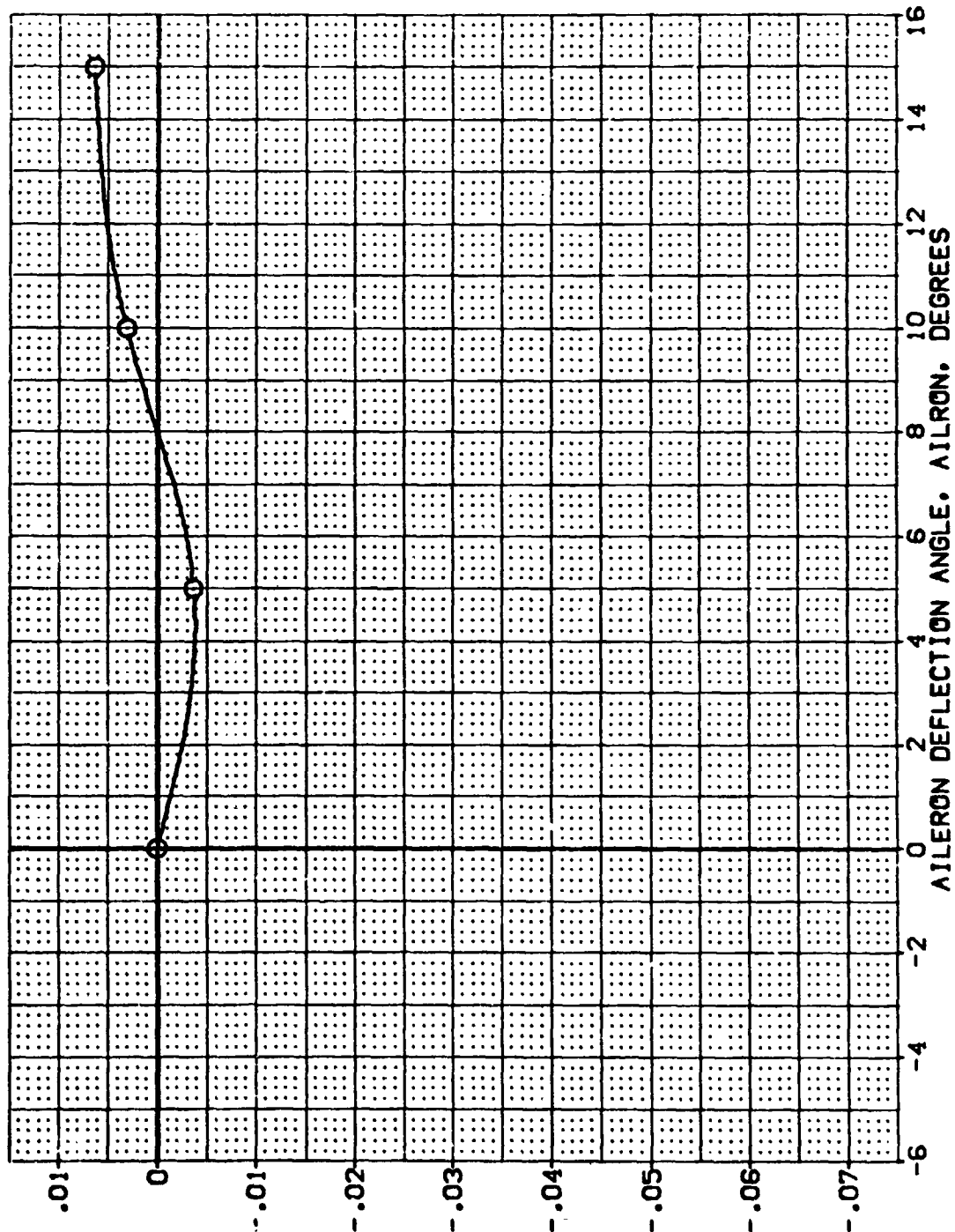


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE





0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	10.000	BDCLAP	.200 DELVON	AILRON	SQ.FT.
		SPOBRK	-12.000 RUDDER	.000 DATASET	INCHES
			25.000 BETA	20Z117	INCHES
				.000 20Z139	INCHES
				10.000	INCHES
				15.000	SCALE
				4.4119	
				19.2239	
				37.9359	
				43.5974	
				.0000	
				15.1875	
				.0405	

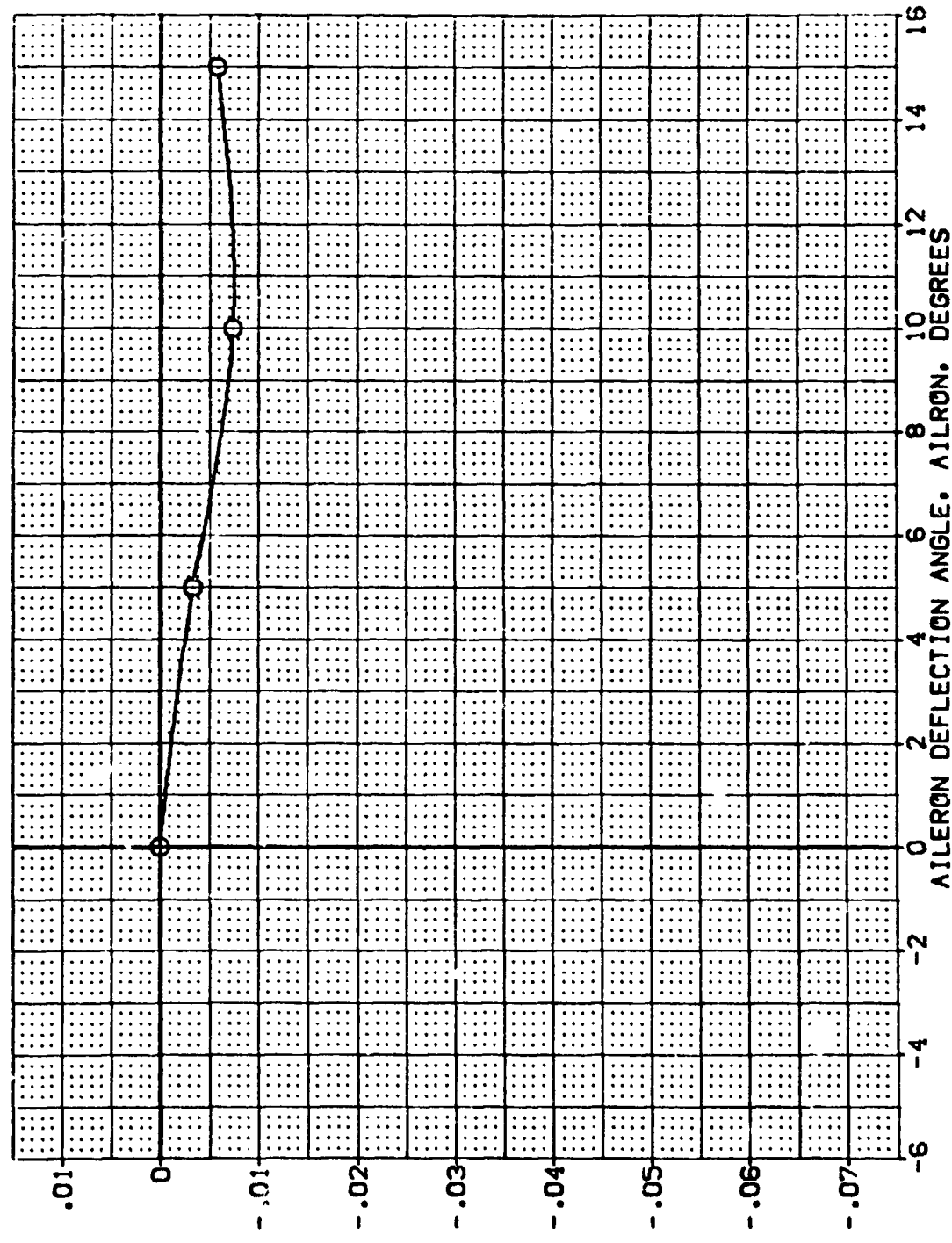


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		DATASET		AILRON		SREF		REFERENCE INFORMATION	
O		15.000	BDCLAP	-12.000	RUDDER	25.000	BETA	.000	20Z117	.000	20Z133	10.000	5.000	15.000	SREF	4.4118	SQ.FT.
			SFOBRK	25.000	BETA				20Z134	.000	20Z133	10.000	5.000	15.000	SREF	19.2299	INCHES
			ZREF	15.1875	SCALE												

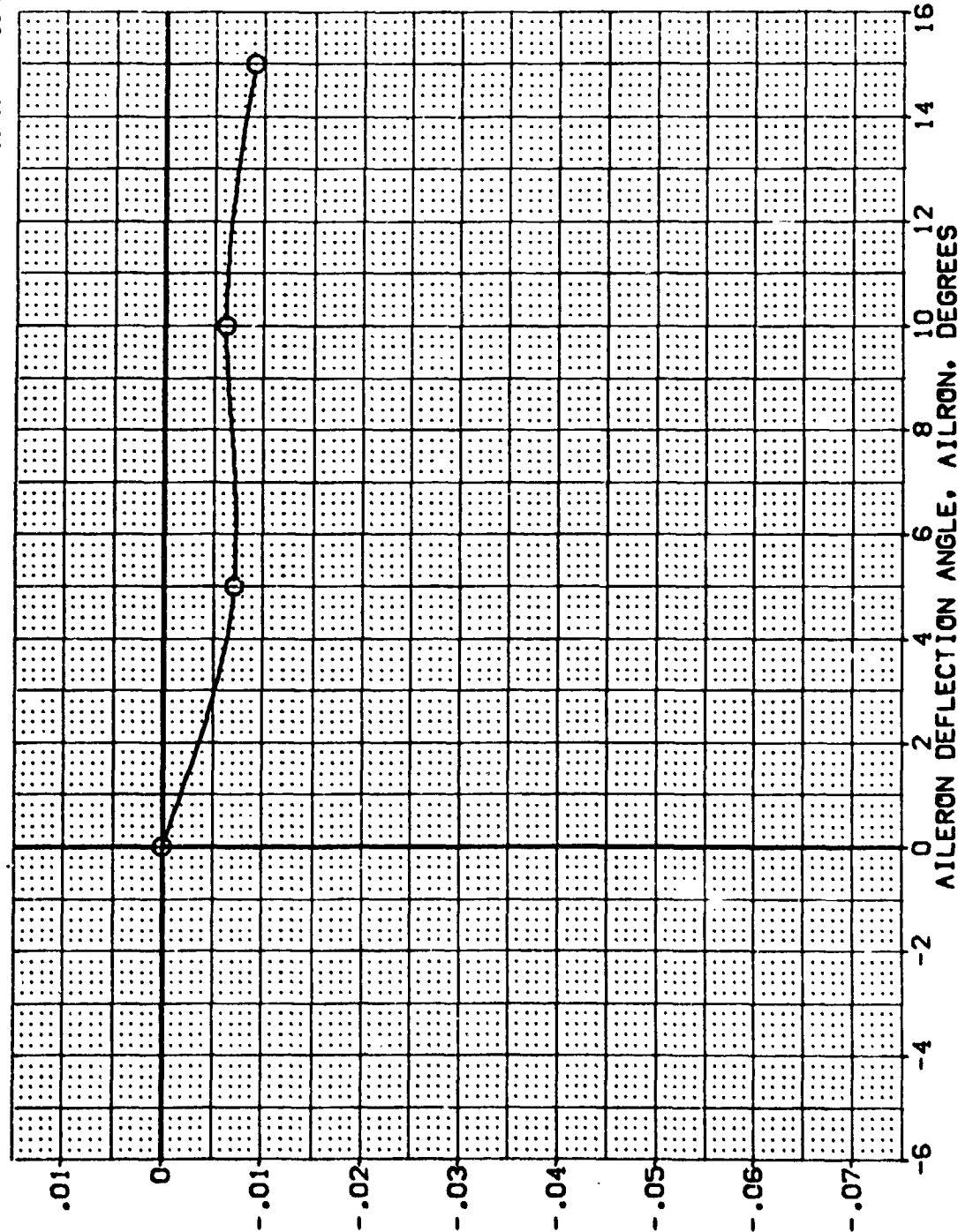
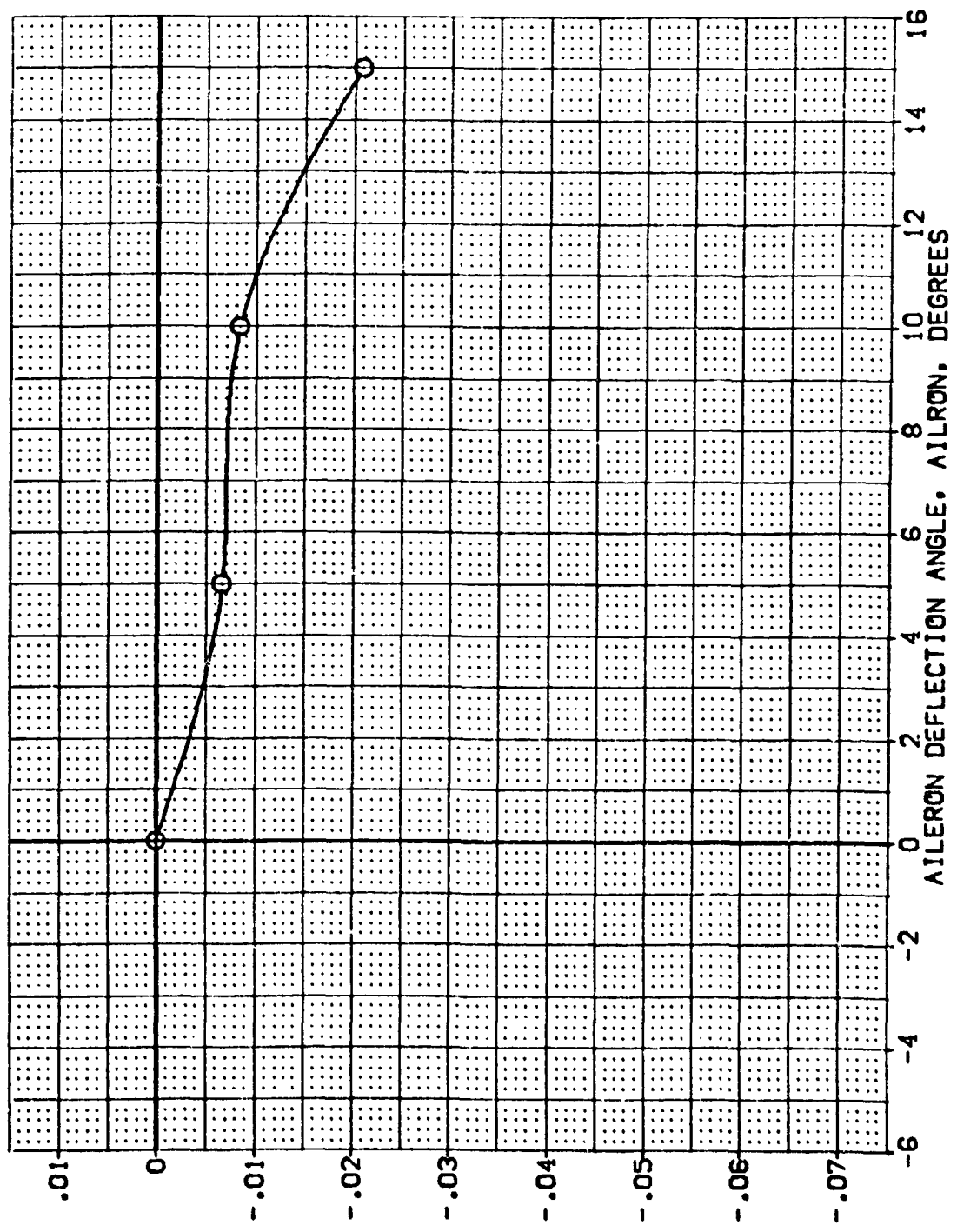


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE



DA628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	20.000	MACH	.200	DELTON	.000	AILRON	20Z132	SREF	4.4119
SYMBOL	O	BDFLAP	-12.000	RUDDER	.000	AILRON	20Z133	LREF	19.2299
		SPDRK	25.000	BETA	10.000	AILRON	20Z134	BREF	37.9359
						AILRON		YMRP	43.5974
						AILRON		ZMRP	.0000
						AILRON		SCALE	15.1875
						AILRON			.0405



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FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 '2DZ117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	AILERON	DATA SET	REF	REFERENCE INFORMATION
0	25.000	80FLAP	.200 DELVON	.000 DATASET	AILRON	20Z132	4.4119	SD.FT.
		SPOBRK	-12.000 RUDDER	.000 20Z117	5.000	20Z134	19.2289	INCHES
			25.000 BETA	.000 20Z133	15.000		37.5359	INCHES
							43.5574	INCHES
							.0000	INCHES
							15.1875	INCHES
							.0405	SCALE

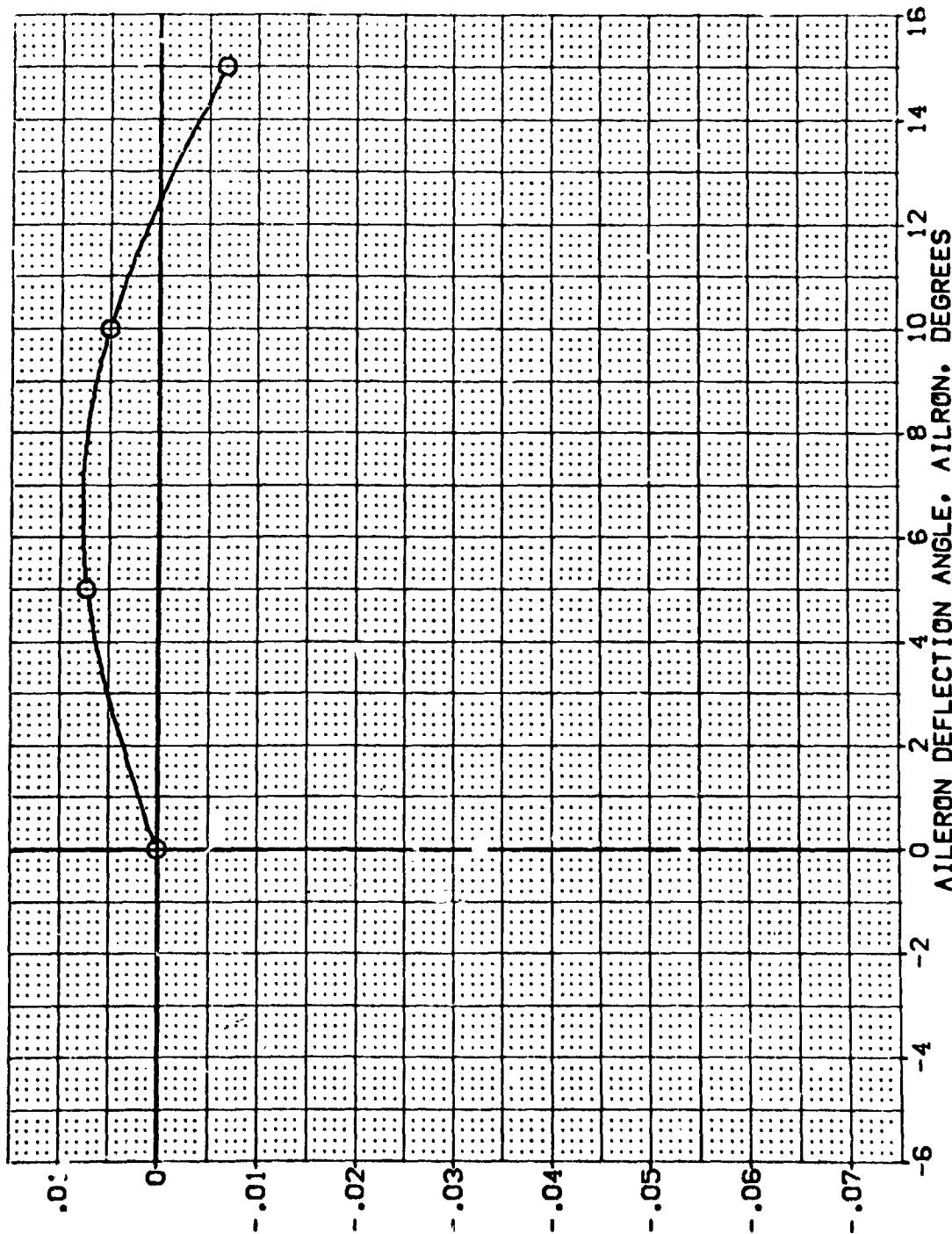


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE



(20Z117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		DATASET		AILRON		REFERENCE INFORMATION			
		MACH	DELTA	DELTA	DELTA	AILRON	AILRON	20Z117	20Z134	5.000	15.000	SREF	4.4119	SO.FT.	
O	30.000	80FLAP	-12.000	RUDER	BETA	.000	.000	.000	.000	.000	.000	LREF	19.2259	INCHES	
		SPDRK	25.000			.000	10.000	.000	.000	.000	.000	BREF	37.5359	INCHES	
												YMRP	43.5874	INCHES	
												ZMRP	15.1875	INCHES	
												SCALE	.0405	SCALE	

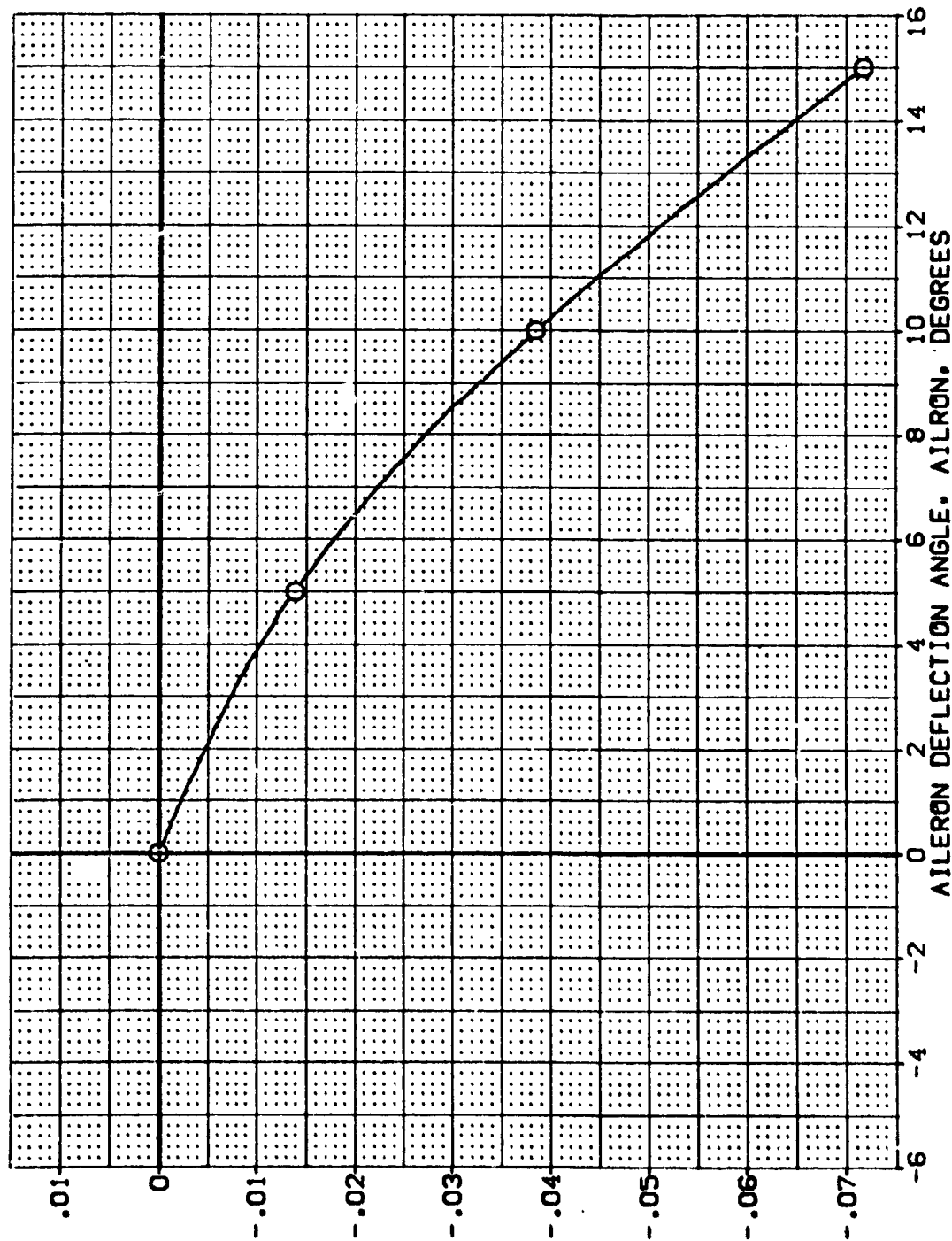


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

**[202117]**

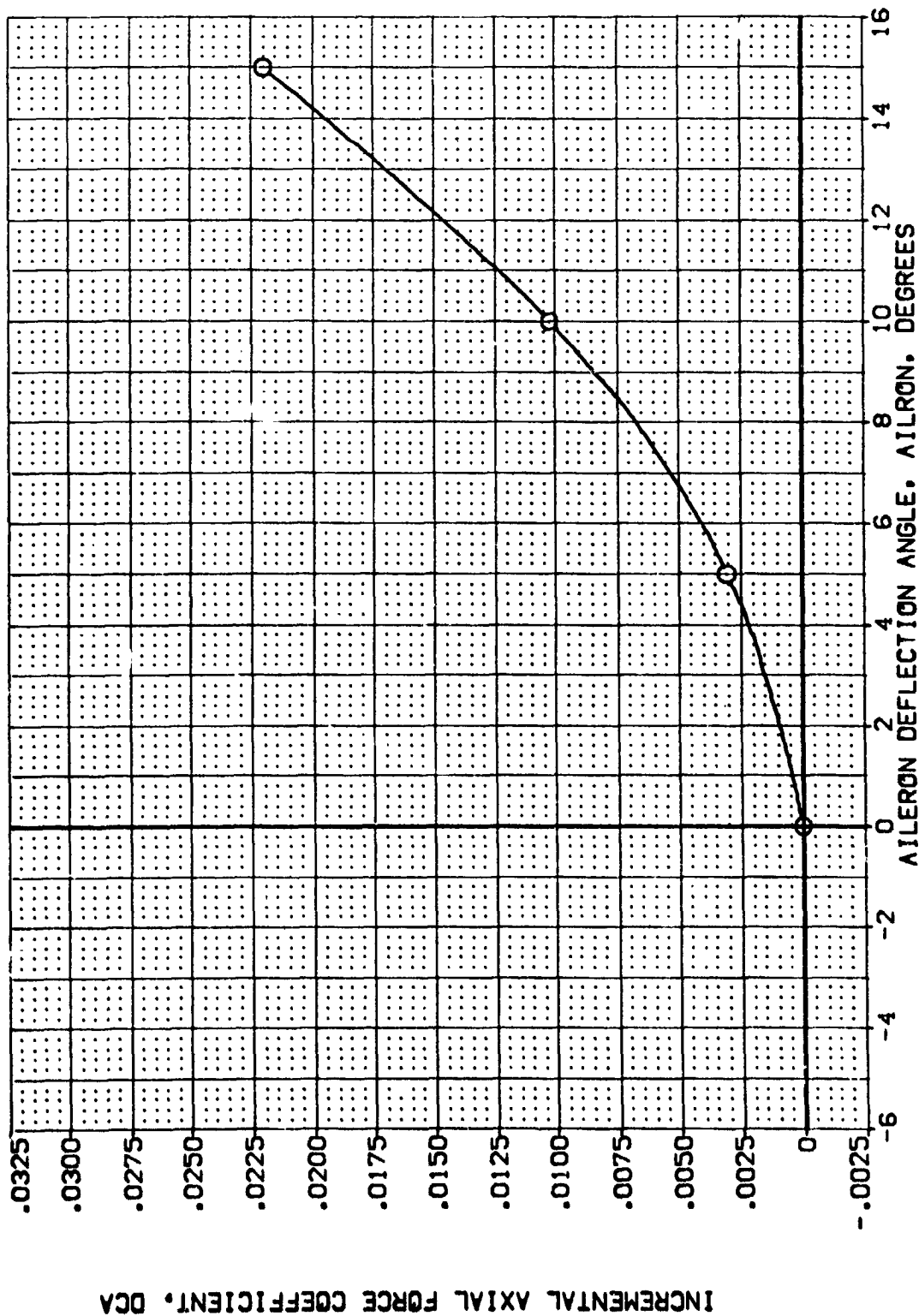
[illegible]

FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
SMBL	O	MACH .200	AIRLN DATASET	SQ-FT.
	5.000	-12.000	AIRLN 20Z117	INCHES
		RUDER	.000 20Z132	INCHES
BFLAP		BETA	10.000 20Z134	INCHES
SPOBRK			.000 YPRP	INCHES
			ZMRP	INCHES
			SCALE	SCALE
				.0405

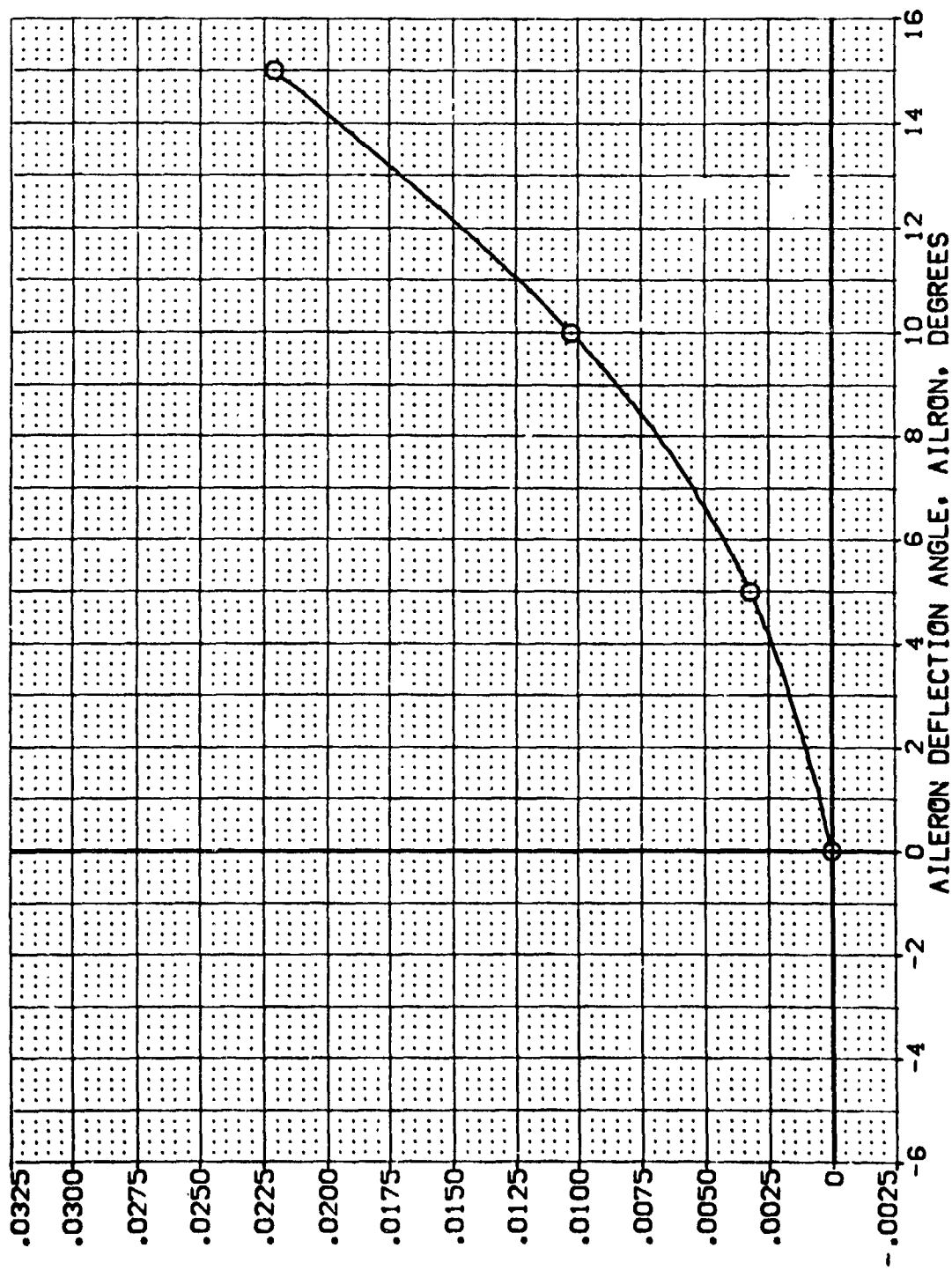


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	10.000	MACH	.200	DELTA	.000	DELTA	.000	DELTA	4.4119	DELTA	50.00
BOFLAP	-12.000	RUDDER	-12.000	DELTA	.000	DELTA	.000	DELTA	19.2299	DELTA	100.00
SPDRK	25.000	BETA	25.000	DELTA	.000	DELTA	.000	DELTA	37.5359	DELTA	100.00
				DELTA	.000	DELTA	.000	DELTA	43.5974	DELTA	100.00
				DELTA	.000	DELTA	.000	DELTA	15.1875	DELTA	100.00
				DELTA	.000	DELTA	.000	DELTA	.0405	DELTA	100.00

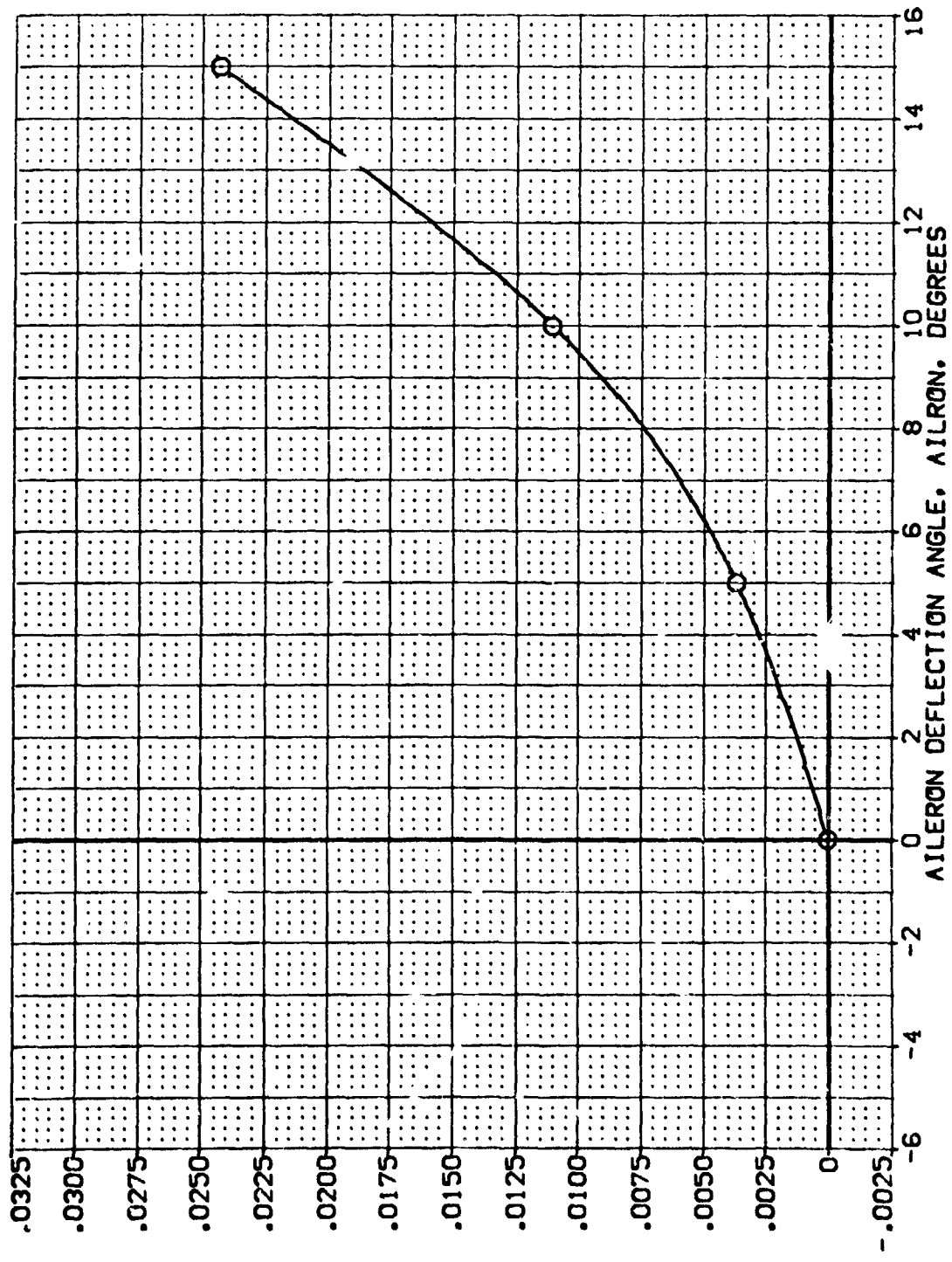


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE





0A628 B26C9 M7F8 W116E28V8R5X9 (2DZ117)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	15.000	DELTA	0.000	REF	50.000
BOFLAP	-12.000	DELTA	0.000	REF	19.2259
SPDRK	25.000	DELTA	0.000	REF	37.9359
		DELTA	0.000	REF	43.5974
		DELTA	0.000	REF	15.0000
		DELTA	0.000	REF	15.1875
		DELTA	0.000	REF	0.0405

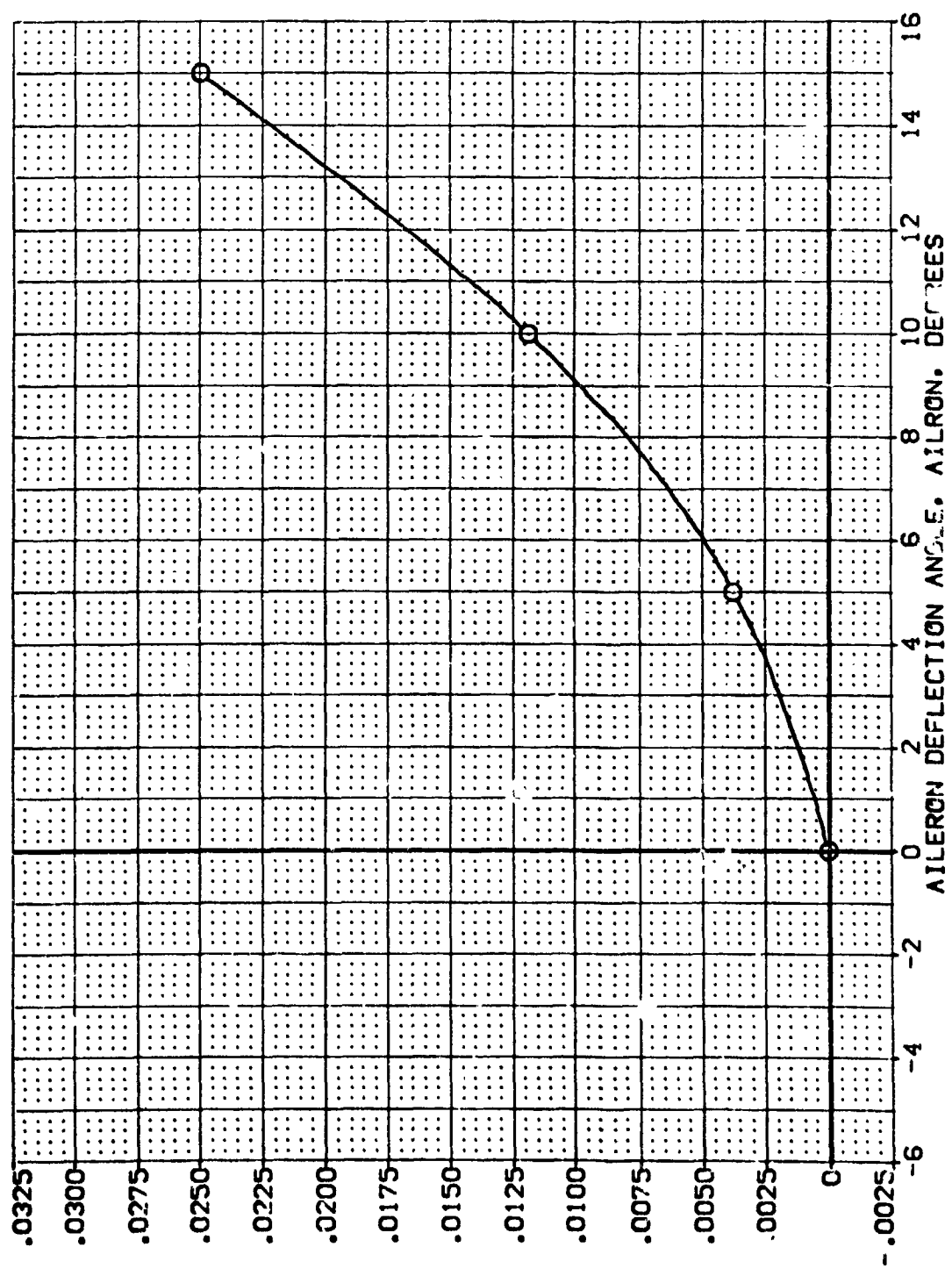


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	20.000	BOFLAP	.200 DELVON	0.000 DATASET	0.000 AILRON
		SPDRK	-12.000 RUDER	0.000 20Z117	5.000 5.000
			25.000 BETA	0.000 20Z133	15.000 15.000
				0.000 20Z134	4.4118 4.4118
				0.000 20Z135	19.2.79 19.2.79
				0.000 20Z136	37.9359 37.9359
				0.000 20Z137	43.5974 43.5974
				0.000 20Z138	0.000 0.000
				0.000 20Z139	15.1875 15.1875
				0.000 20Z140	0.000 0.000
				0.000 20Z141	0.000 0.000
				0.000 20Z142	0.000 0.000
				0.000 20Z143	0.000 0.000
				0.000 20Z144	0.000 0.000
				0.000 20Z145	0.000 0.000
				0.000 20Z146	0.000 0.000
				0.000 20Z147	0.000 0.000
				0.000 20Z148	0.000 0.000
				0.000 20Z149	0.000 0.000
				0.000 20Z150	0.000 0.000
				0.000 20Z151	0.000 0.000
				0.000 20Z152	0.000 0.000
				0.000 20Z153	0.000 0.000
				0.000 20Z154	0.000 0.000
				0.000 20Z155	0.000 0.000
				0.000 20Z156	0.000 0.000
				0.000 20Z157	0.000 0.000
				0.000 20Z158	0.000 0.000
				0.000 20Z159	0.000 0.000
				0.000 20Z160	0.000 0.000
				0.000 20Z161	0.000 0.000
				0.000 20Z162	0.000 0.000
				0.000 20Z163	0.000 0.000
				0.000 20Z164	0.000 0.000
				0.000 20Z165	0.000 0.000
				0.000 20Z166	0.000 0.000
				0.000 20Z167	0.000 0.000
				0.000 20Z168	0.000 0.000
				0.000 20Z169	0.000 0.000
				0.000 20Z170	0.000 0.000
				0.000 20Z171	0.000 0.000
				0.000 20Z172	0.000 0.000
				0.000 20Z173	0.000 0.000
				0.000 20Z174	0.000 0.000
				0.000 20Z175	0.000 0.000
				0.000 20Z176	0.000 0.000
				0.000 20Z177	0.000 0.000
				0.000 20Z178	0.000 0.000
				0.000 20Z179	0.000 0.000
				0.000 20Z180	0.000 0.000
				0.000 20Z181	0.000 0.000
				0.000 20Z182	0.000 0.000
				0.000 20Z183	0.000 0.000
				0.000 20Z184	0.000 0.000
				0.000 20Z185	0.000 0.000
				0.000 20Z186	0.000 0.000
				0.000 20Z187	0.000 0.000
				0.000 20Z188	0.000 0.000
				0.000 20Z189	0.000 0.000
				0.000 20Z190	0.000 0.000
				0.000 20Z191	0.000 0.000
				0.000 20Z192	0.000 0.000
				0.000 20Z193	0.000 0.000
				0.000 20Z194	0.000 0.000
				0.000 20Z195	0.000 0.000
				0.000 20Z196	0.000 0.000
				0.000 20Z197	0.000 0.000
				0.000 20Z198	0.000 0.000
				0.000 20Z199	0.000 0.000
				0.000 20Z200	0.000 0.000

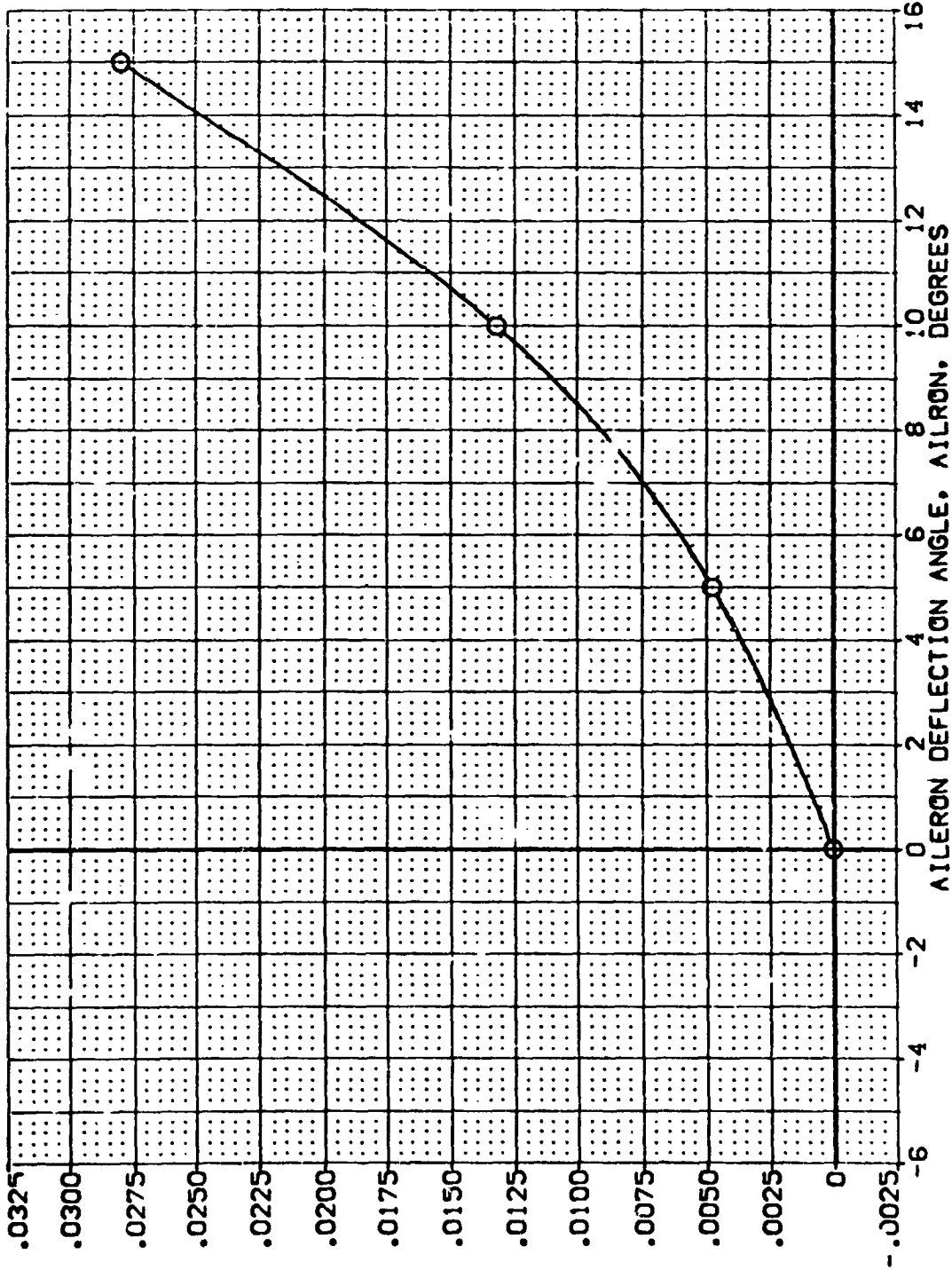


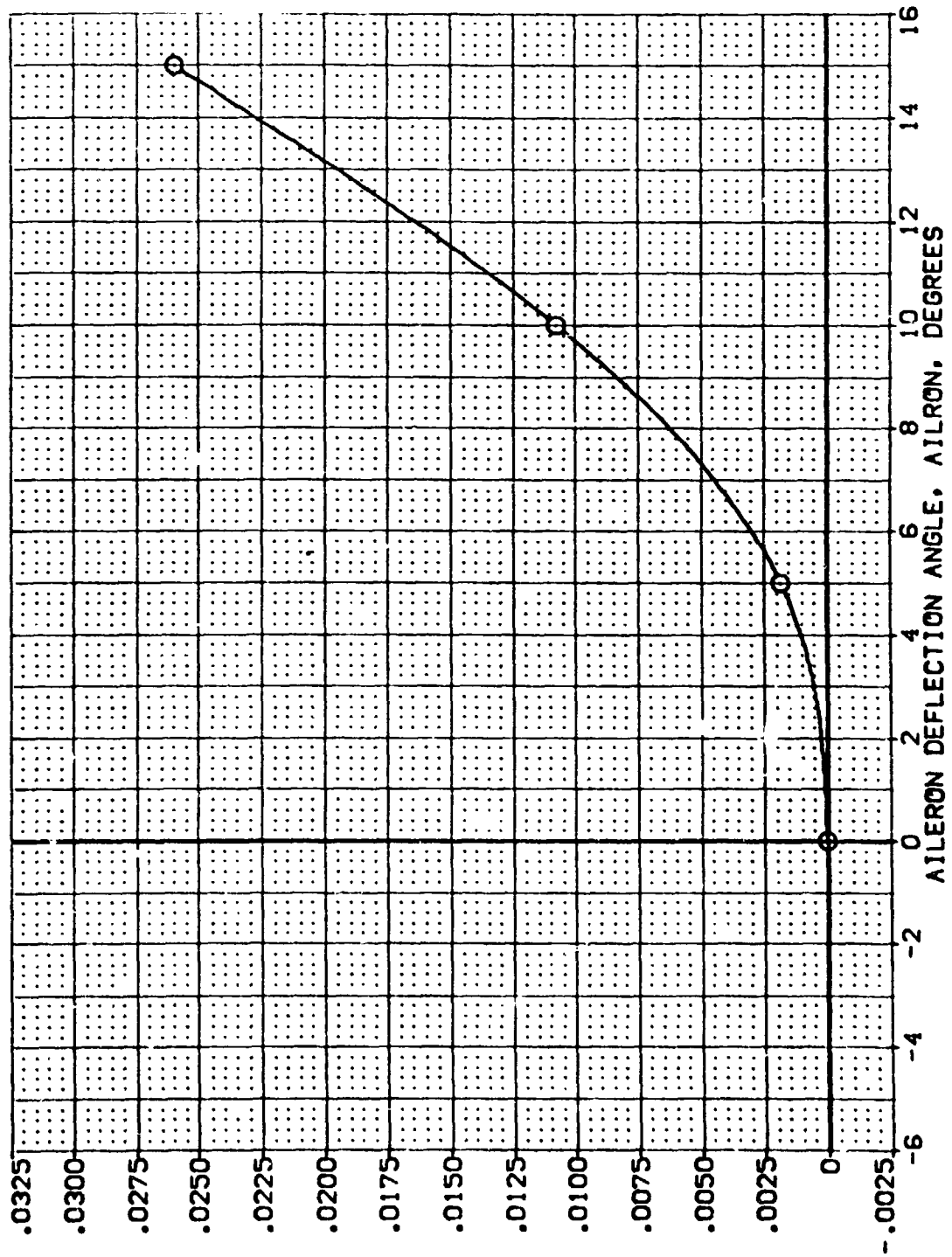
FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0

64

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	AILRON	DATASET	AILRON	SREF	REFERENCE INFORMATION
0	25.000		.200 DELVON	.000	AILRON	20Z132	5.000	4.4118	SO.FT.
		80FLAP	-12.000 RUDDER	.000	10.000	20Z134	15.000	19.2238	INO-ES
		SPDRK	25.000 BETA	.000	20Z133			37.9359	INO-ES
								43.5974	INO-ES
								15.0000	INO-ES
								15.1873	INO-ES
								.0405	SCALE



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FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	AILRON	REF	REFERENCE INFORMATION
O	30.000	80FLAP	.200 DELVON	AILRON	20Z117	5.000	4.4119	50.FT.
		SPOBRK	-12.000 RUDDER	.000	20Z133	10.000	19.2259	INOES
			25.000 BETA	.000	20Z134	15.000	37.9358	INOES
							43.5874	INOES
							15.0000	INOES
							15.1875	SCALE
							.0405	

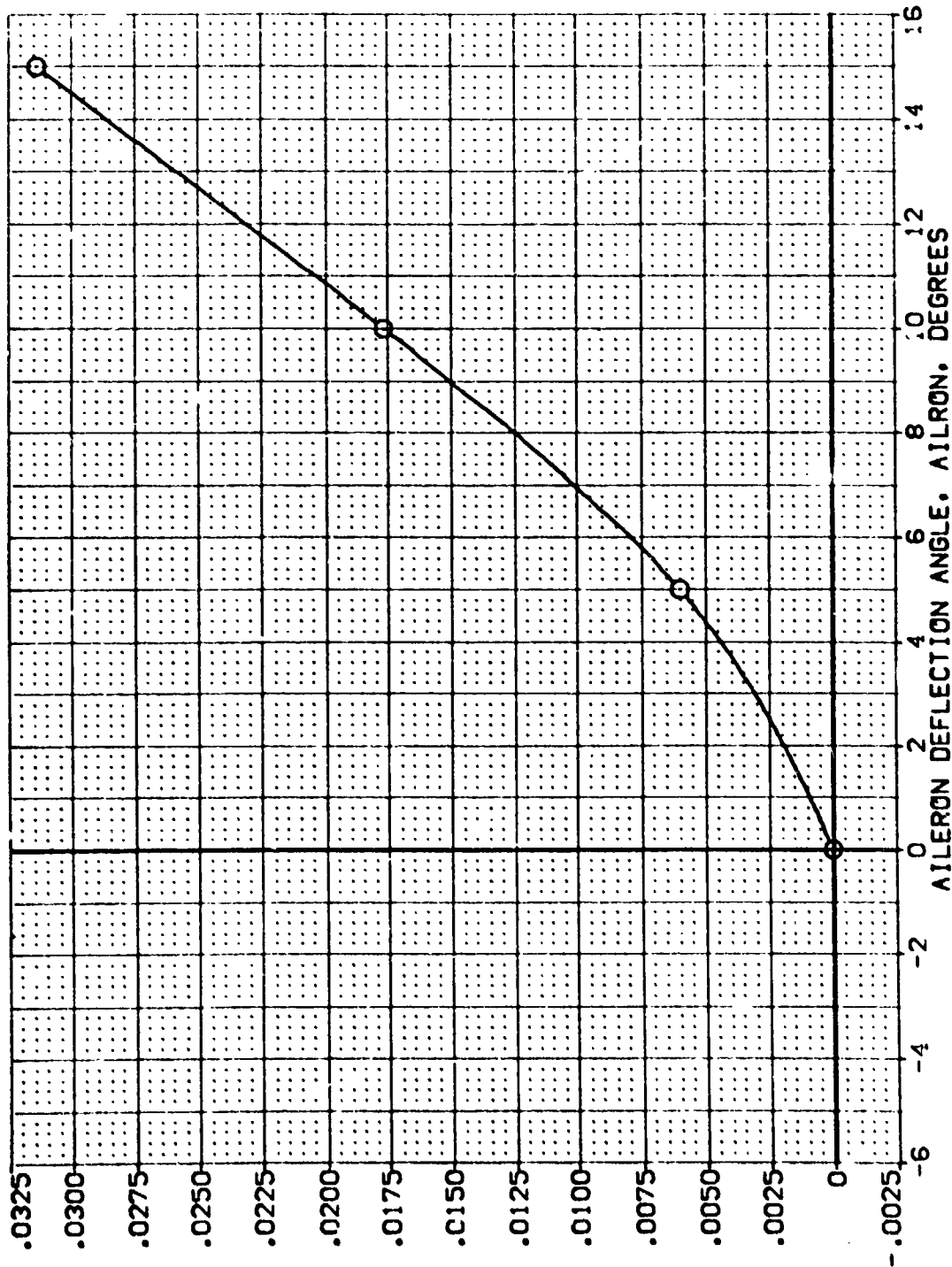


FIG 48 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG. FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORON	BOFLAP	RUDER	REFERENCE INFORMATION
(BDZ117)	0A528 B26C3 M7F8 V116E28/8P5X3	.000	25.000	-12.000	.000	SRF 4.4118 90.FT.
(BDZ135)	0A528 B26C3 M7F8 V116E28/8P5X3	.000	25.000	.000	.000	LRUF 19.2238 1NO-ES
(BDZ136)	0A528 B26C3 M7F8 V116E28/8P5X3	.000	25.000	.000	.000	SRF 37.9354 1NO-ES
(BDZ137)	0A528 B26C3 M7F8 V116E28/8P5X3	.000	25.000	.000	.000	SRF 43.5874 1NO-ES
						YPRP 15.0000 1NO-ES
						ZPRP 15.1875 1NO-ES
						SCALE .0405 SCALE

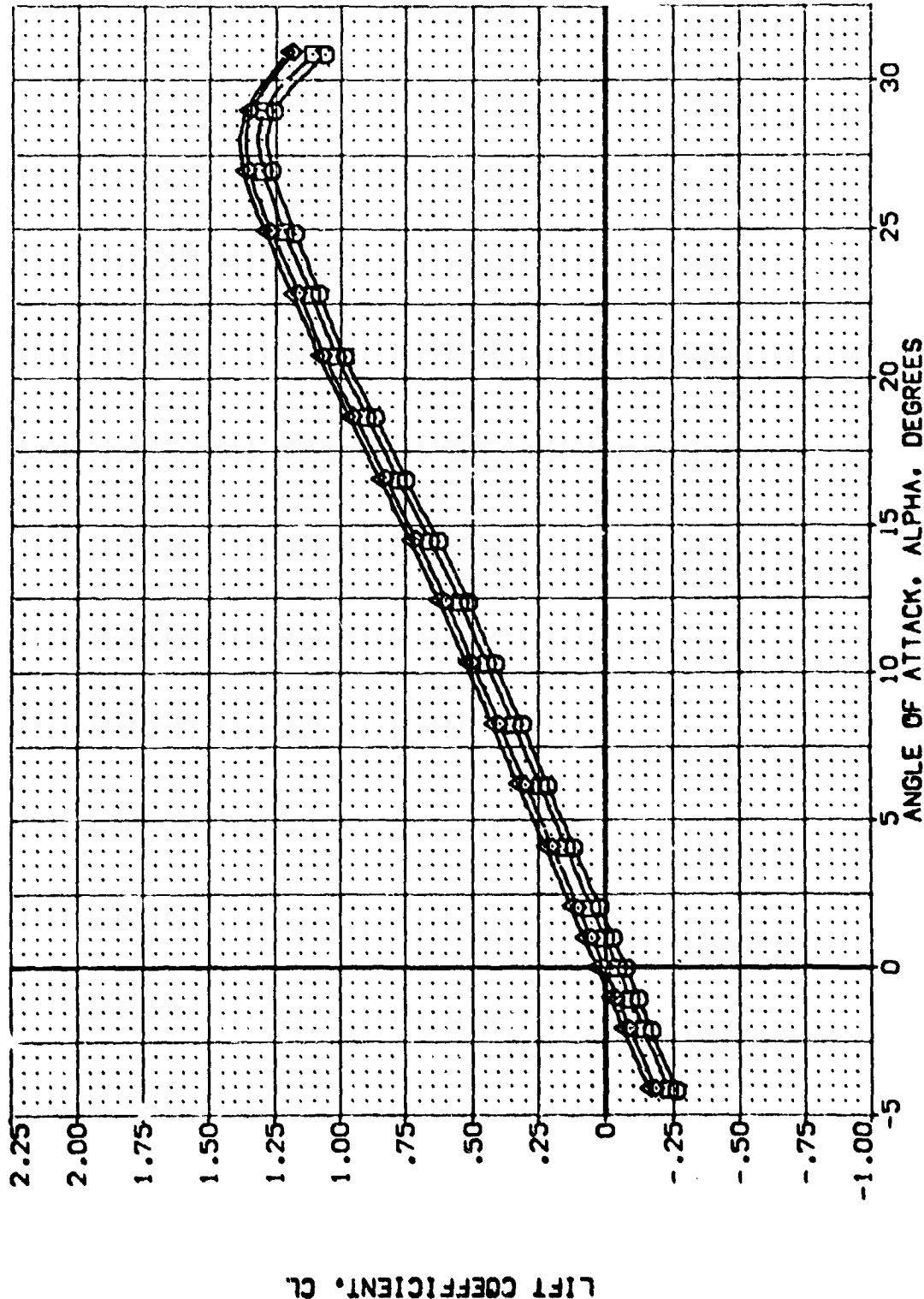


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(B0Z117)	0A628 B06C3 M7F8 V11E28V8F5X9	.000	25.000	-12.000	.000	SREF 4.4119 SO.FT.
(B0Z118)	0A628 B06C3 M7F8 V11E28V8F5X9	.000	25.000	.000	.000	LREF 19.2289 INO-ES
(B0Z119)	0A628 B06C3 M7F8 V11E28V8F5X9	.000	25.000	16.000	.000	BREF 37.9359 INO-ES
(B0Z137)	0A628 B06C3 M7F8 V11E28V8F5X9	.000	25.000	22.000	.000	XREF 43.5974 INO-ES
						YREF .0000 INO-ES
						ZREF 15.1875 INO-ES
						SCALE .0405

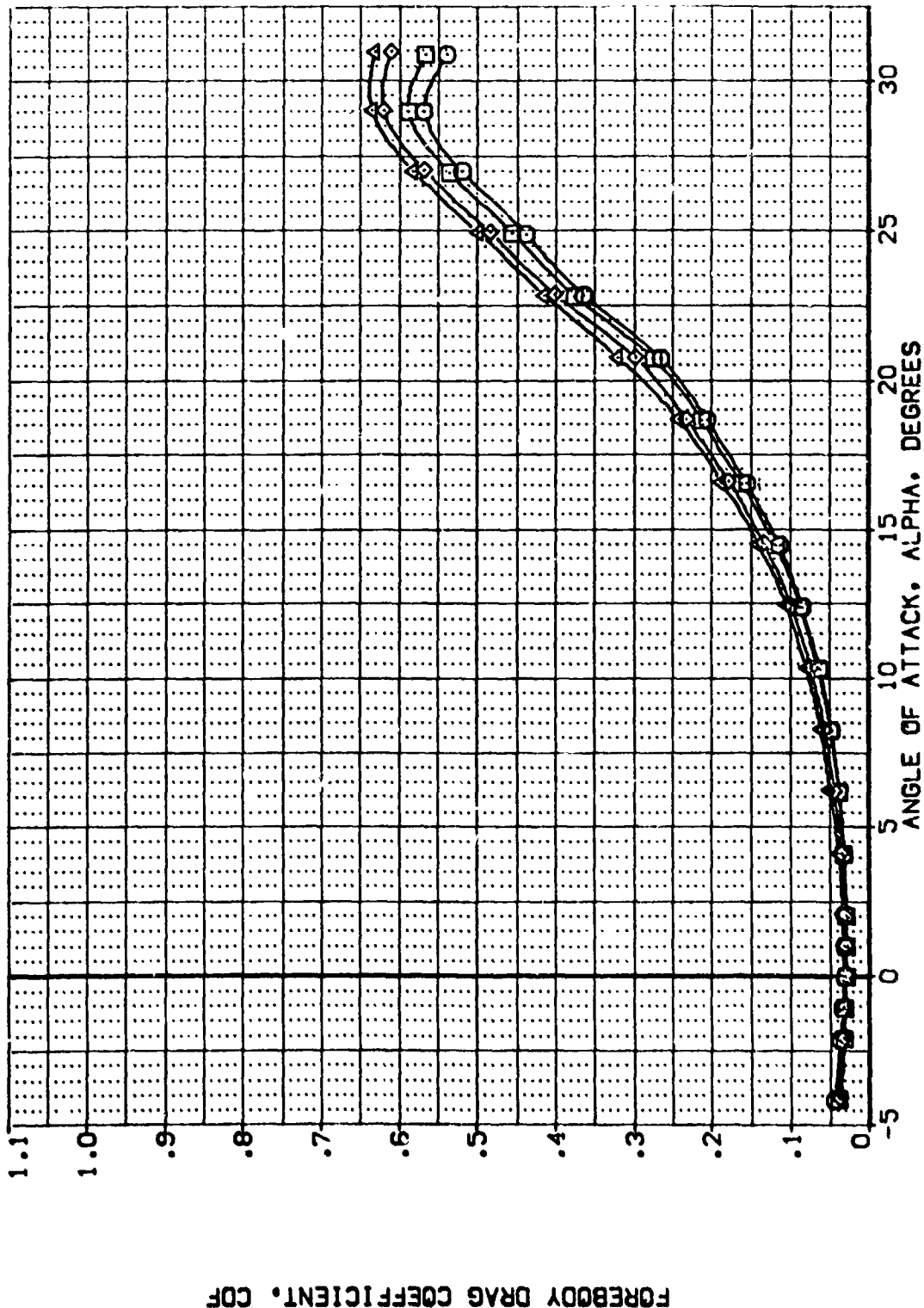


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	BD FLAP	RUDDER	REFERENCE INFORMATION
[BDZ17]	0A628 B261.9 MTF8 V116E28V85X9	.000	23.000	-12.000	.000	SREF 4.4119 50.FT.
[BDZ135]	0A628 B261.9 MTF8 V116E28V85X9	.000	23.000	.000	.000	LREF 19.2299 INO-ES
[BDZ136]	0A628 B261.9 MTF8 V116E28V85X9	.000	23.000	16.000	.000	BREF 37.9359 INO-ES
[BDZ137]	0A628 B261.9 MTF8 V116E28V85X9	.000	23.000	22.000	.000	XREF 43.5974 INO-ES
						YREF 15.1875 INO-ES
						ZREF .0405 SCALE

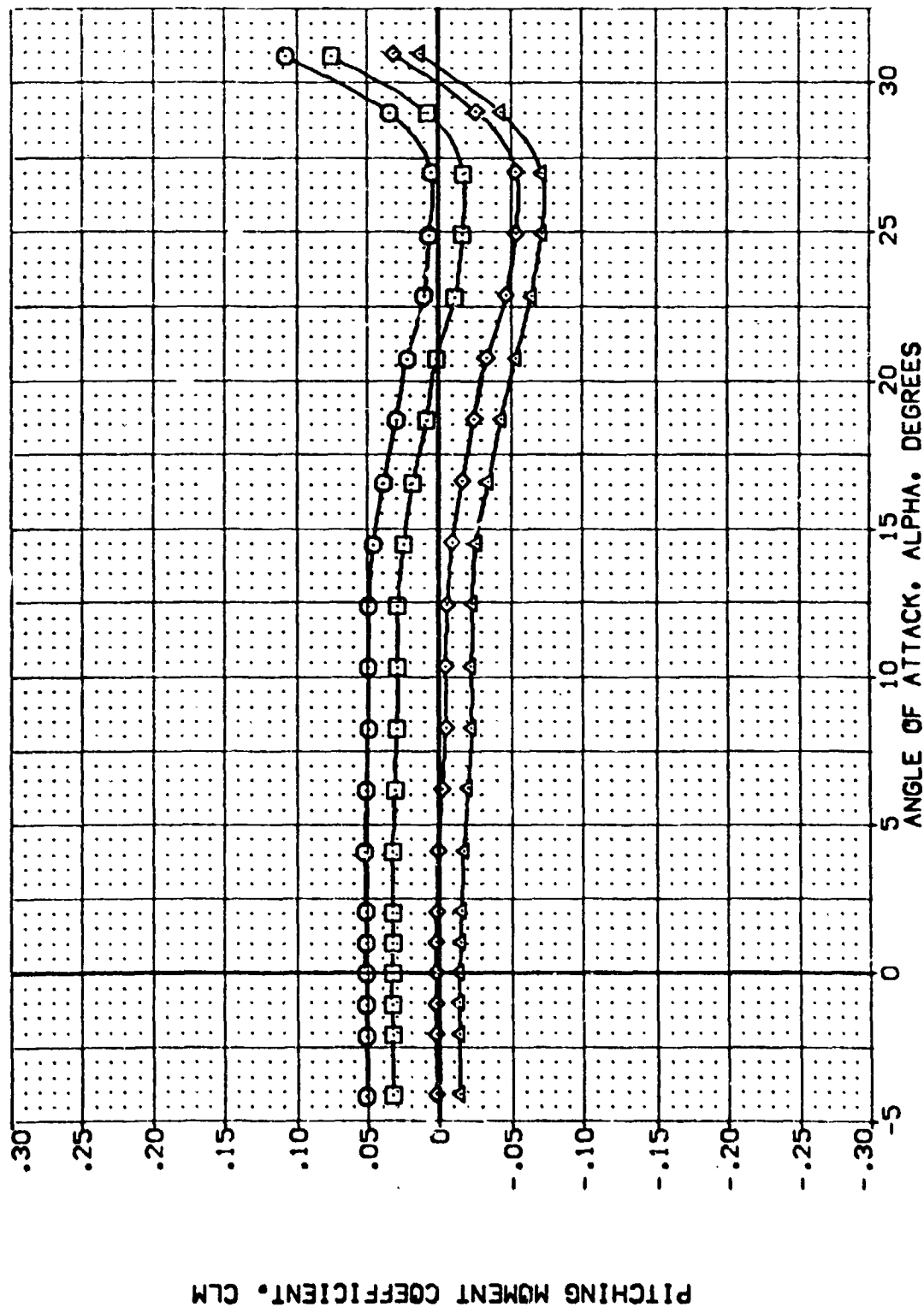


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

(A)MACH = .20

0A628 B26C9 M7F8 W116E28V8R5X9 (J02117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
0	-4.000	AIRLON	.200	DELVON	.000	DATASET	BDFLAP	REF	SO.FT.		
		SPDRK	.000	RUDDER	.000	J02117	-12.000	LREF	19.2259	NOES	
			25.000	BETA	.000	J02136	16.000	YREF	37.9259	NOES	
								ZREF	43.5874	NOES	
								SCALE	15.1875	NOES	
									SCALE	.0405	

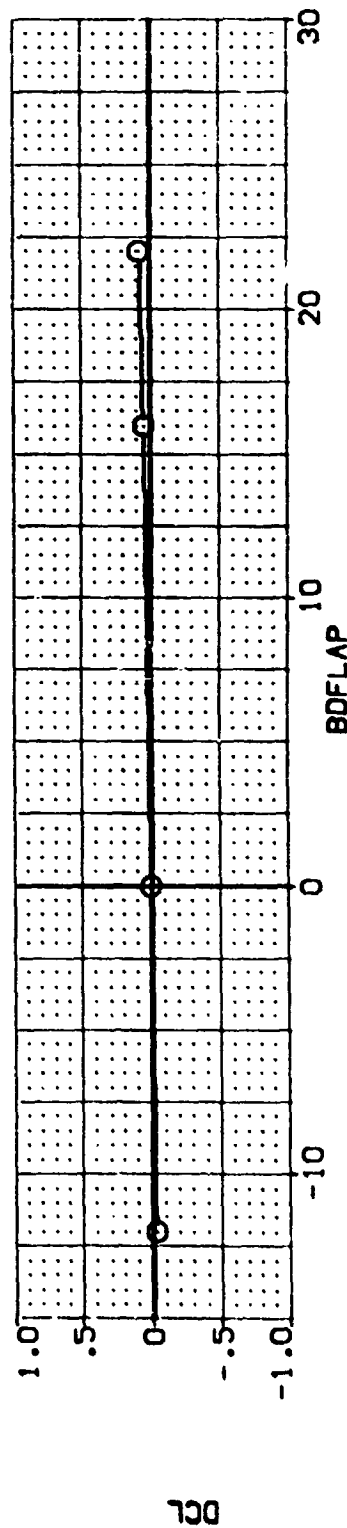
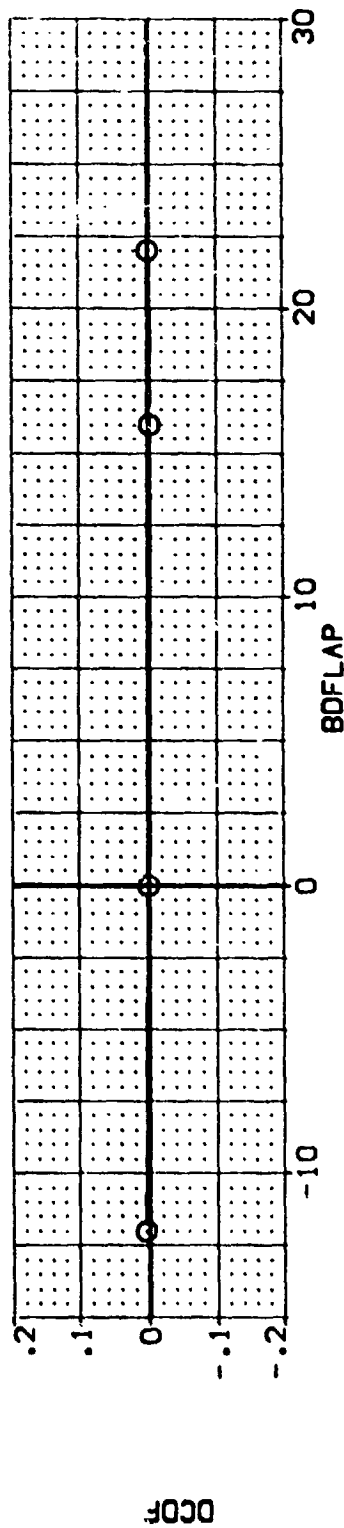
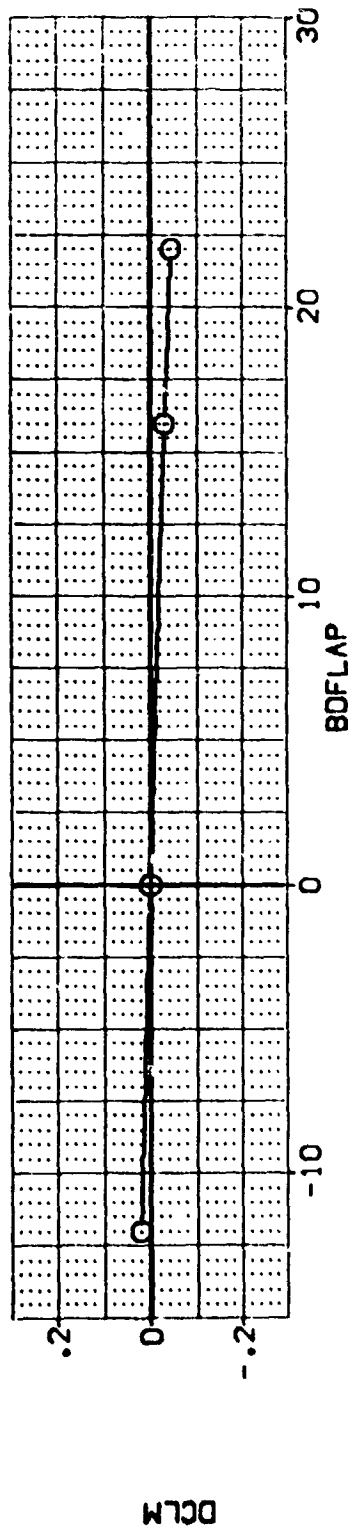


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE



(J02117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	DELTA	DELTA	DELTA	REF	INCHES	INCHES	INCHES
0	-2.000	.200	.000	J02117	J02135	4.4119	50.000	50.000	50.000
		.000	.000	J02136	J02137	19.2288	19.2288	19.2288	19.2288
		25.000	BETA			37.9239	37.9239	37.9239	37.9239
						43.5574	43.5574	43.5574	43.5574
						15.1875	15.1875	15.1875	15.1875
						SCALE	SCALE	SCALE	SCALE

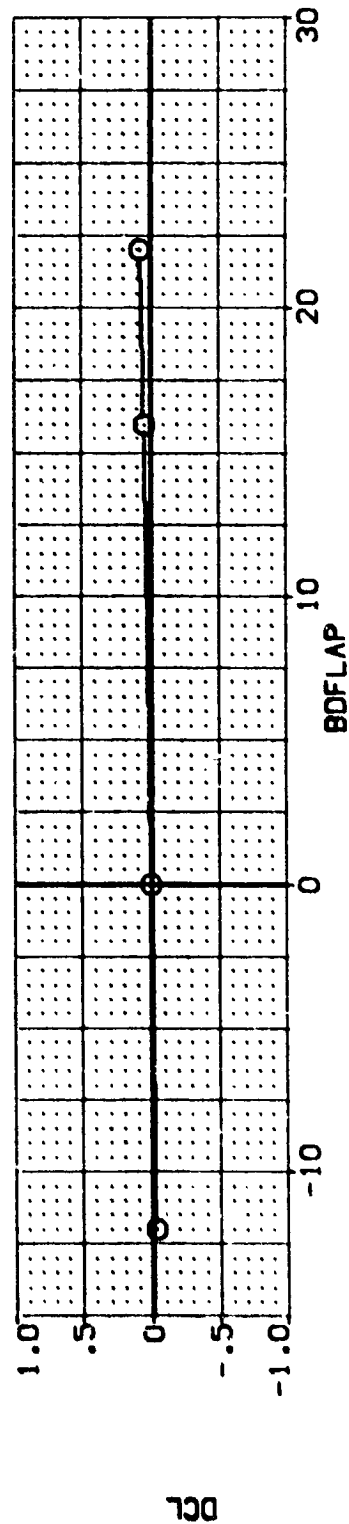
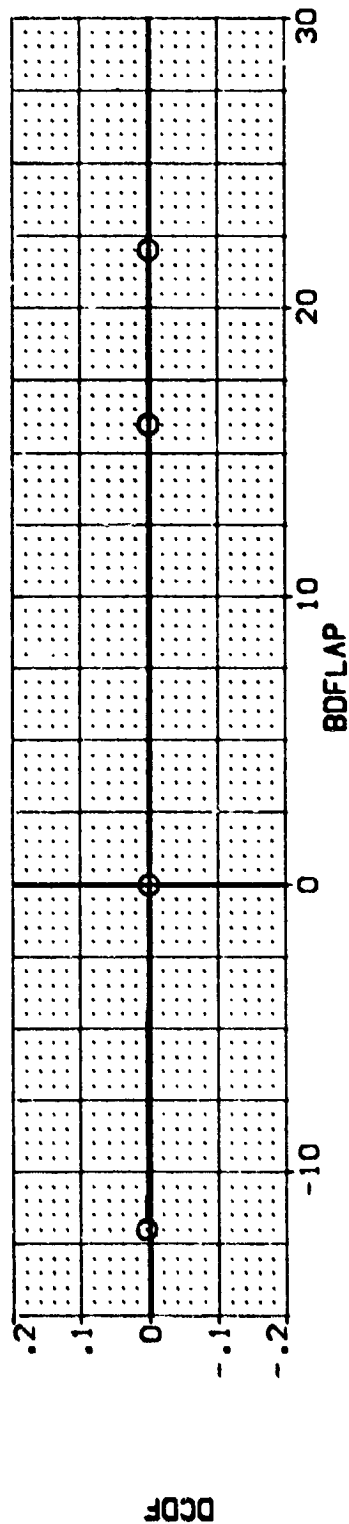
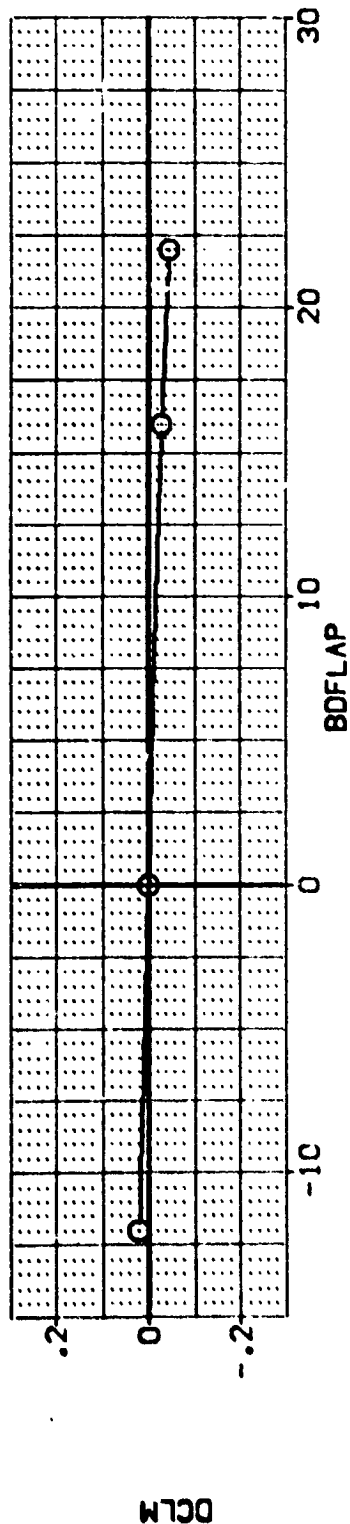
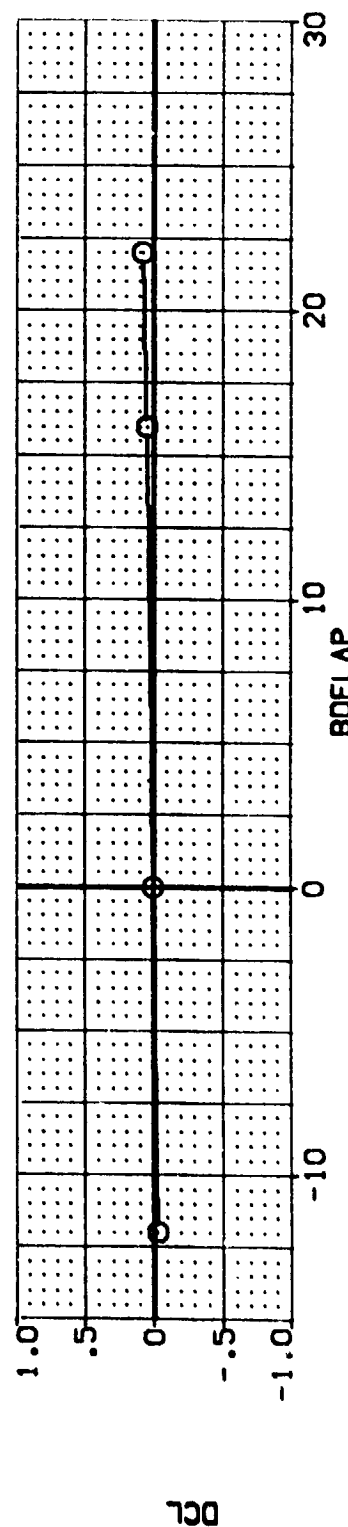
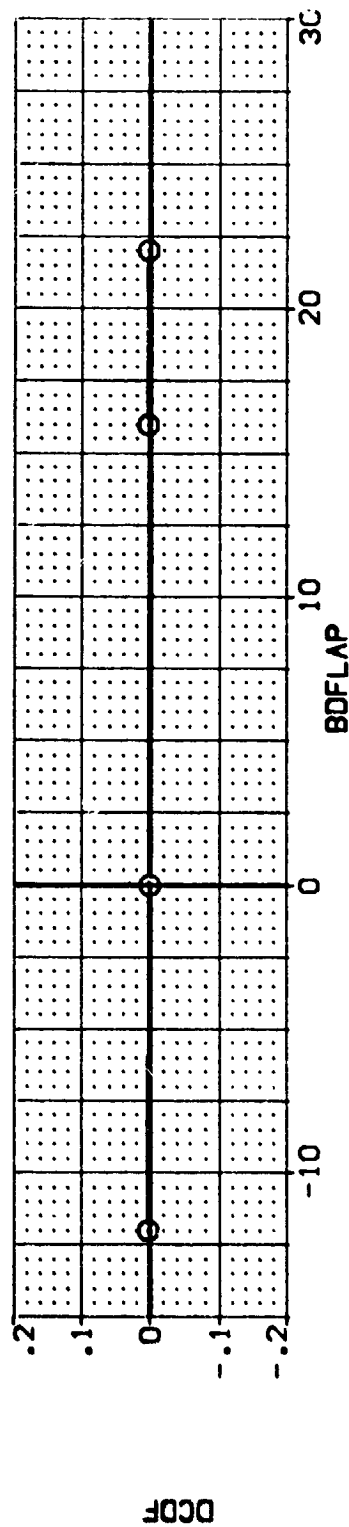
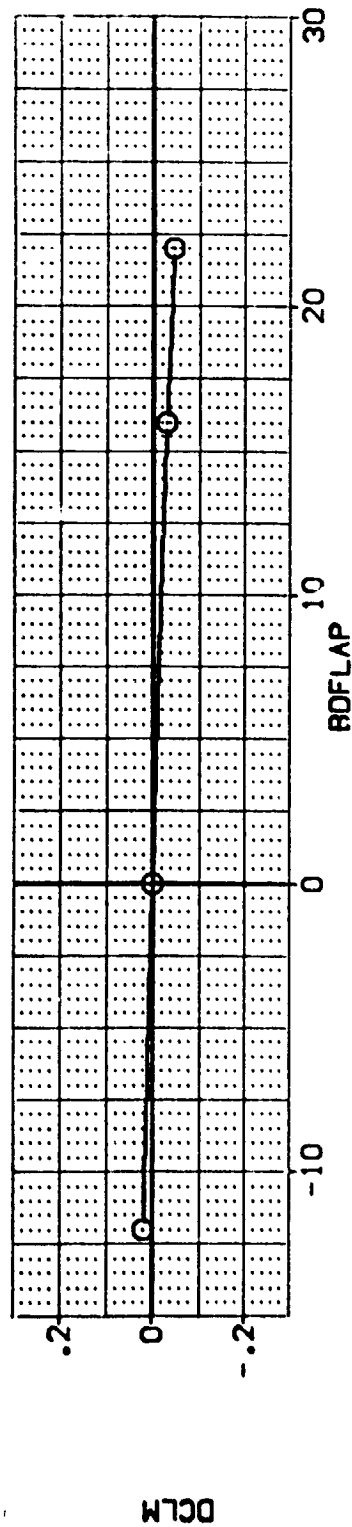


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (J0Z117)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		BOFLAP		REFERENCE INFORMATION	
0	-1.000	MACH	.200	DELVON	.000	DATASET	BOFLAP	DATASET	SREF	4.4118
		AIRLON	.000	RUDDER	.000	J02117	-12.000	J02135	UREF	19.2295
		SPOBRK	25.000	BETA	.000	J02136	16.000	J02137	BREF	37.5359
									XPRP	43.5974
									YPRP	.0000
									ZPRP	15.1875
									SCALE	.0405
									INCHES	SCALE
									INCHES	SO. FT.



**FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE**

0A62B B26C9 M7F8 W116E28V8R5X9 (JDZ117)  
 SYMBOL ALPHA MACH AIRION SPOBRK  
 0 .000 .200 .000 25.000  
 PARAMETRIC VALUES  
 DELVON RUDDER BETA  
 .000 .000 .000  
 DATA SOURCE  
 DATASET JDZ117  
 BDFLAP -12.000  
 DATASET JDZ135  
 BDFLAP 22.000  
 REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

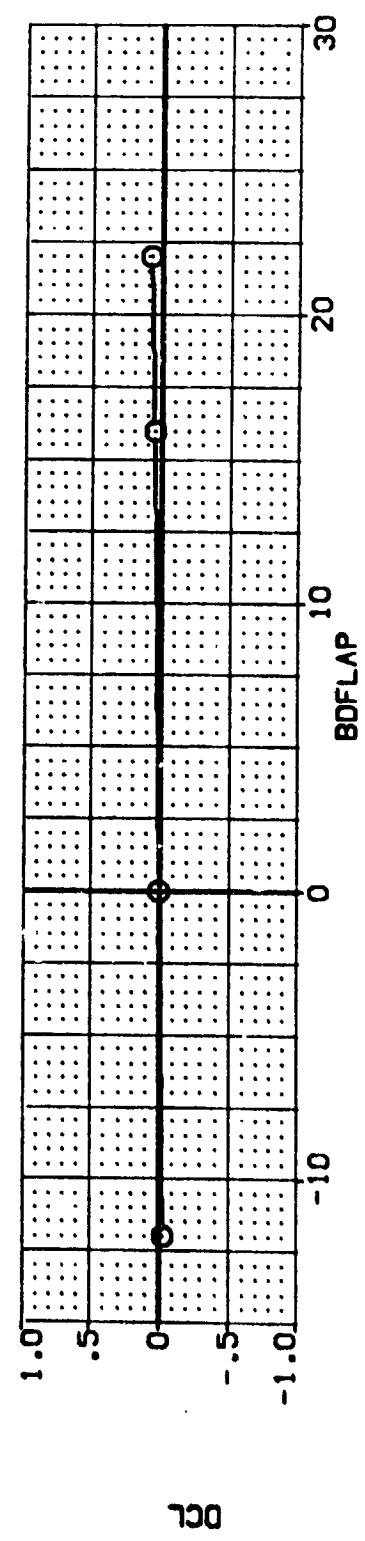
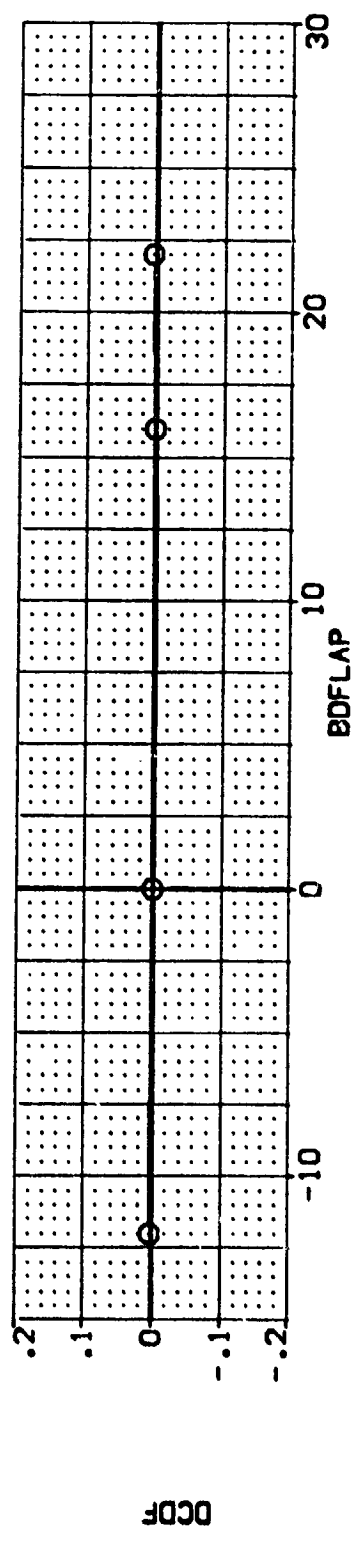
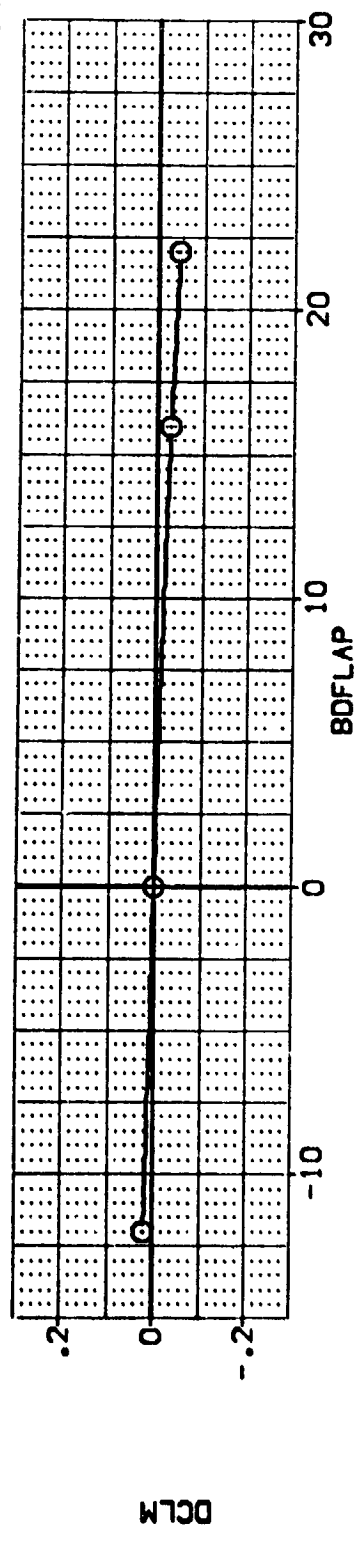


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (JDZ117)

STREL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	1.000	ALURON	.000 DELVON	0.000 DAT/SET	SO.FT.
		SPOBRK	.000 RUDDER	.000 JDZ117	IN-ES
		BETA	.000 BETA	.000 JDZ136	IN-ES
				.000 JDZ137	IN-ES
				REF	IN-ES
				YMRP	IN-ES
				ZMRP	IN-ES
				SCALE	SCALE

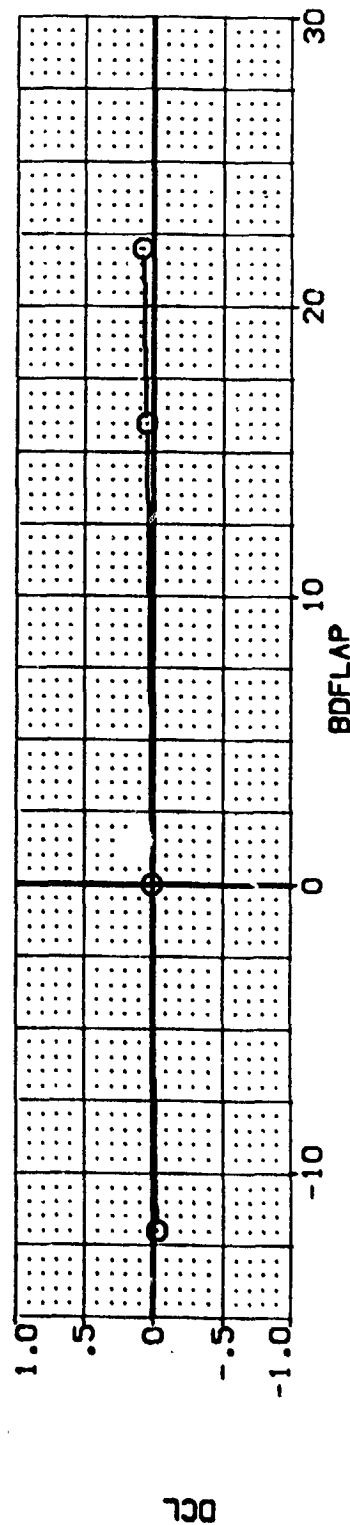
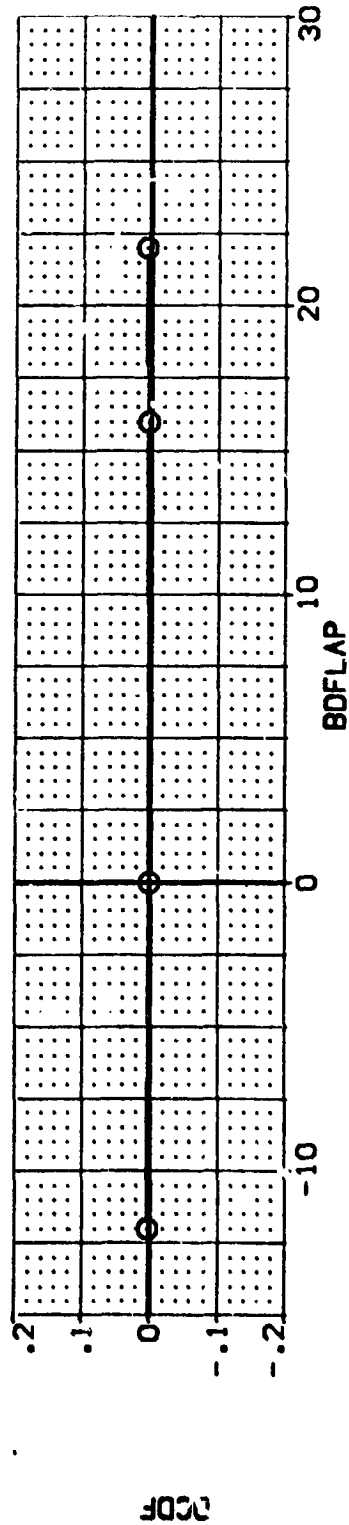
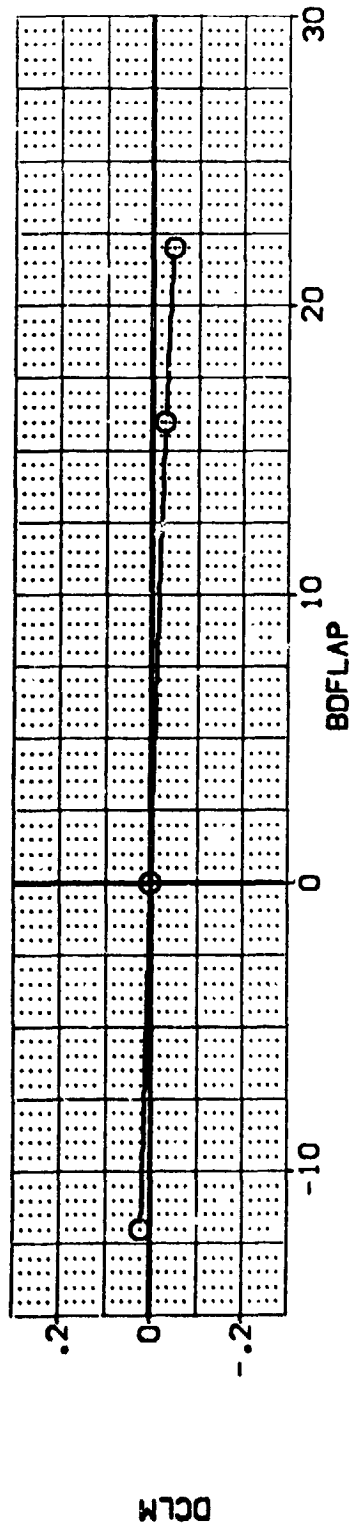


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (JDZ117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	2.000	A1UR0N	.200 DELVON	BDFLAP	SRF 4.4119
		SP08X	.000 RLOOR	BDZ117	LRF 19.2299
			25.000 BETA	BDZ136	BRF 37.9359
				BDZ137	YRFP 43.5974
					YRFP 0000
					YRFP 15.1875
					SCALE .0405

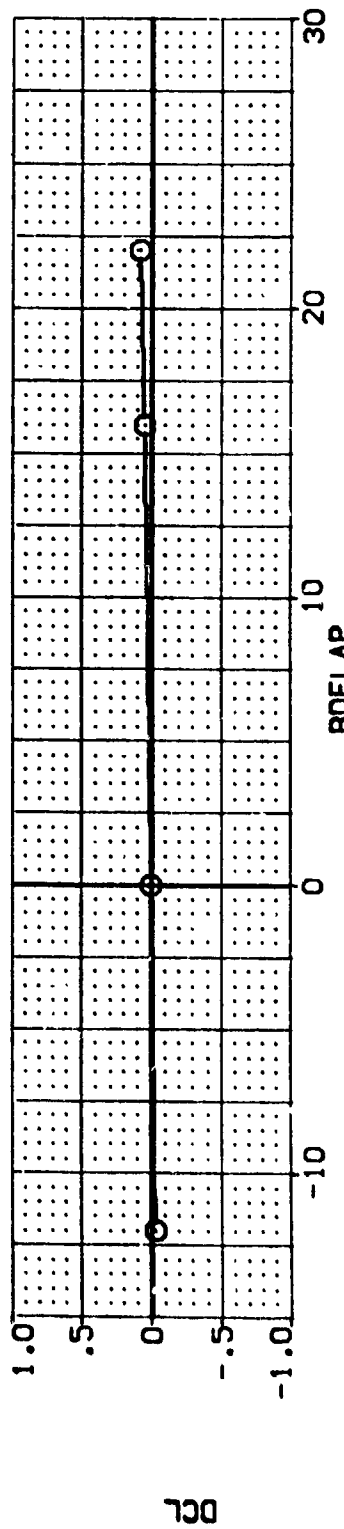
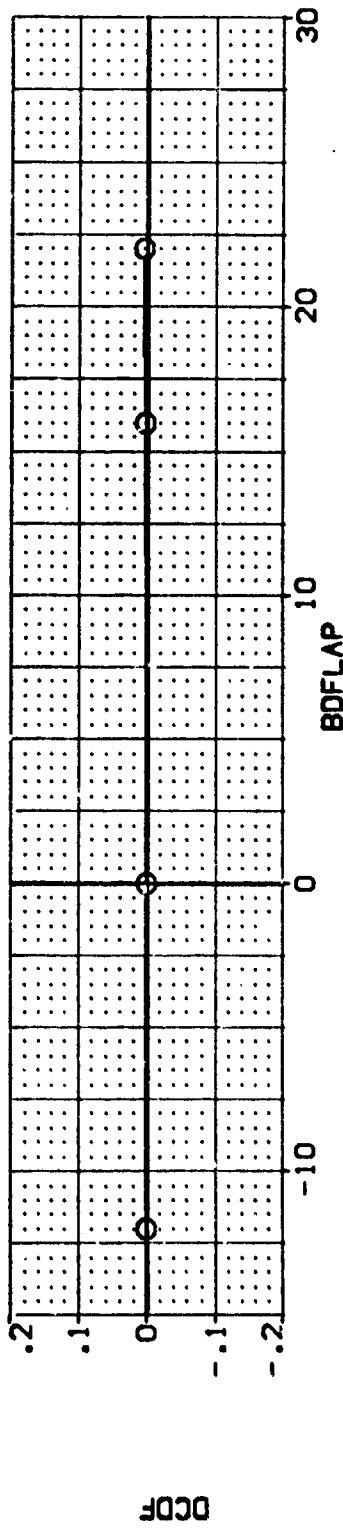
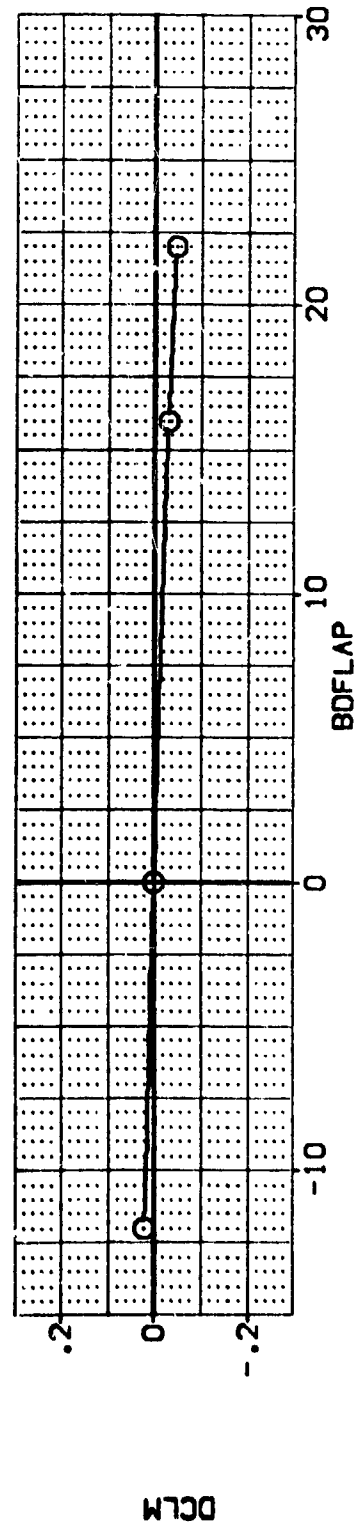
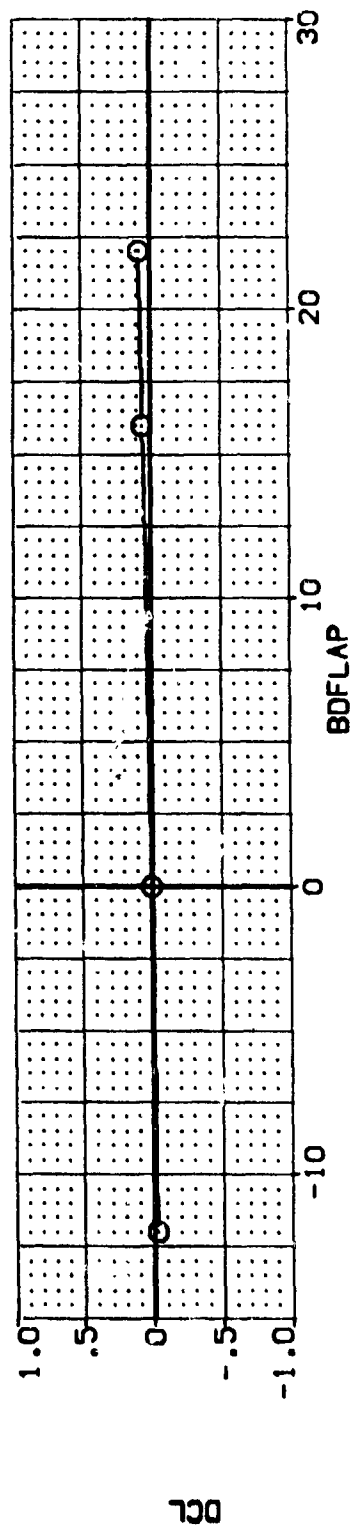
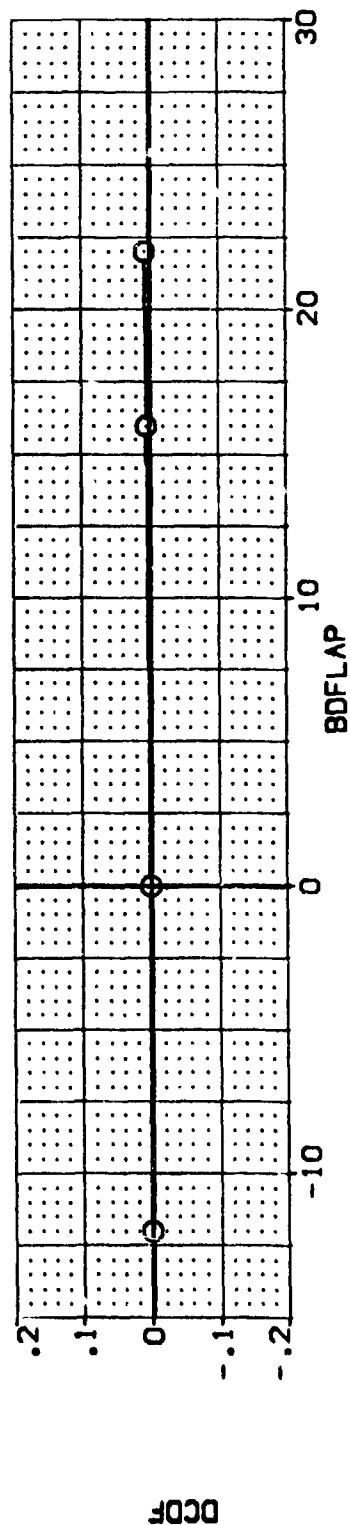
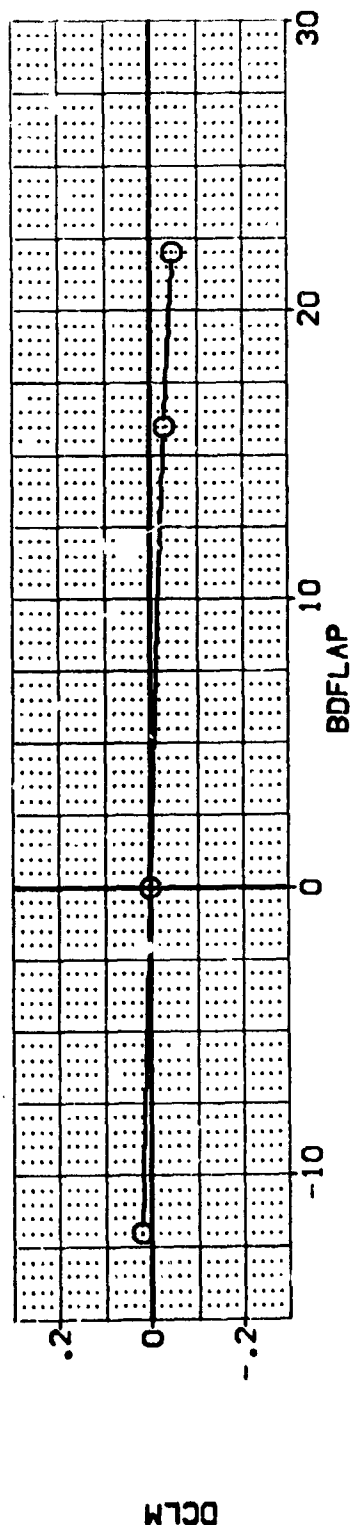
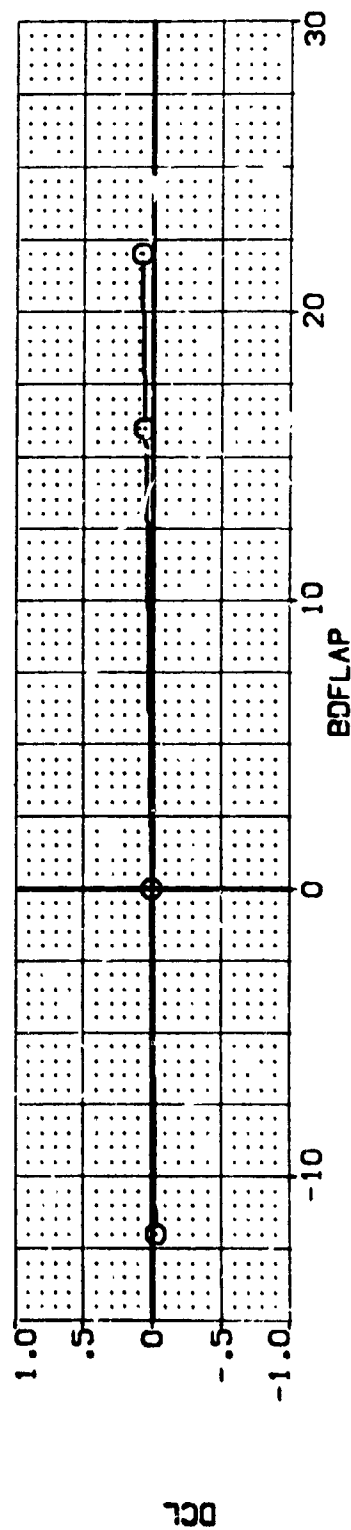
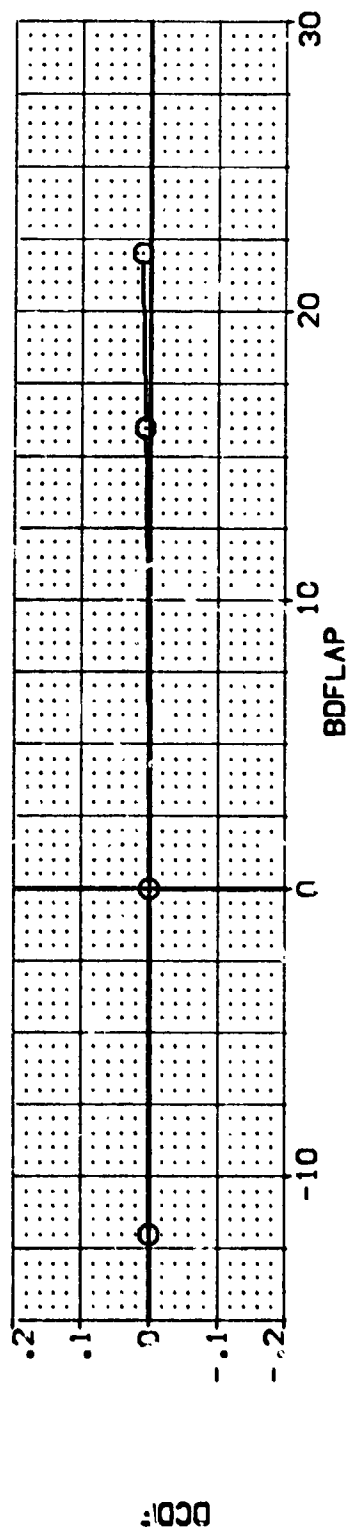
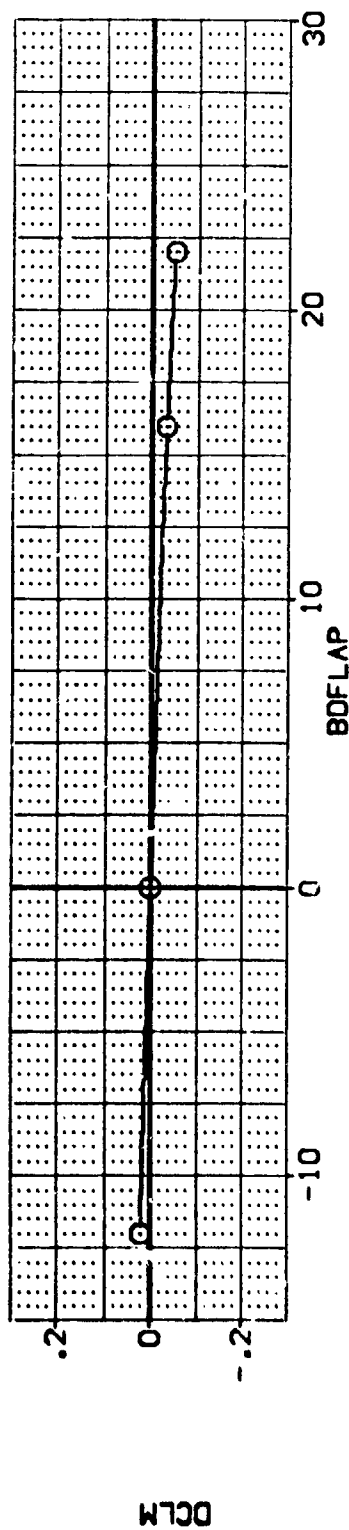


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

[illegible]

**FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE**

{J0Z117}

[illegible]

**FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE**

0A628 B26C9 M7F8 J116E28V8K5X9 (JDZ117)  
 SYMBOL ALPHA DATA SOURCE DATASET BOFLAP REFERENCE INFORMATION  
 O 8.000 .000 JDZ117 -12.000 JREF 4.4118 80.57  
 .000 JDZ117 .000 JREF 19.2298 NOES  
 .000 JDZ136 16.000 XREF 37.9398 NOES  
 15.000 BETA YREF 43.5974 NOES  
 ZREF .0000 NOES  
 SCALE 15.1875 NOES  
 .0405 SCALE

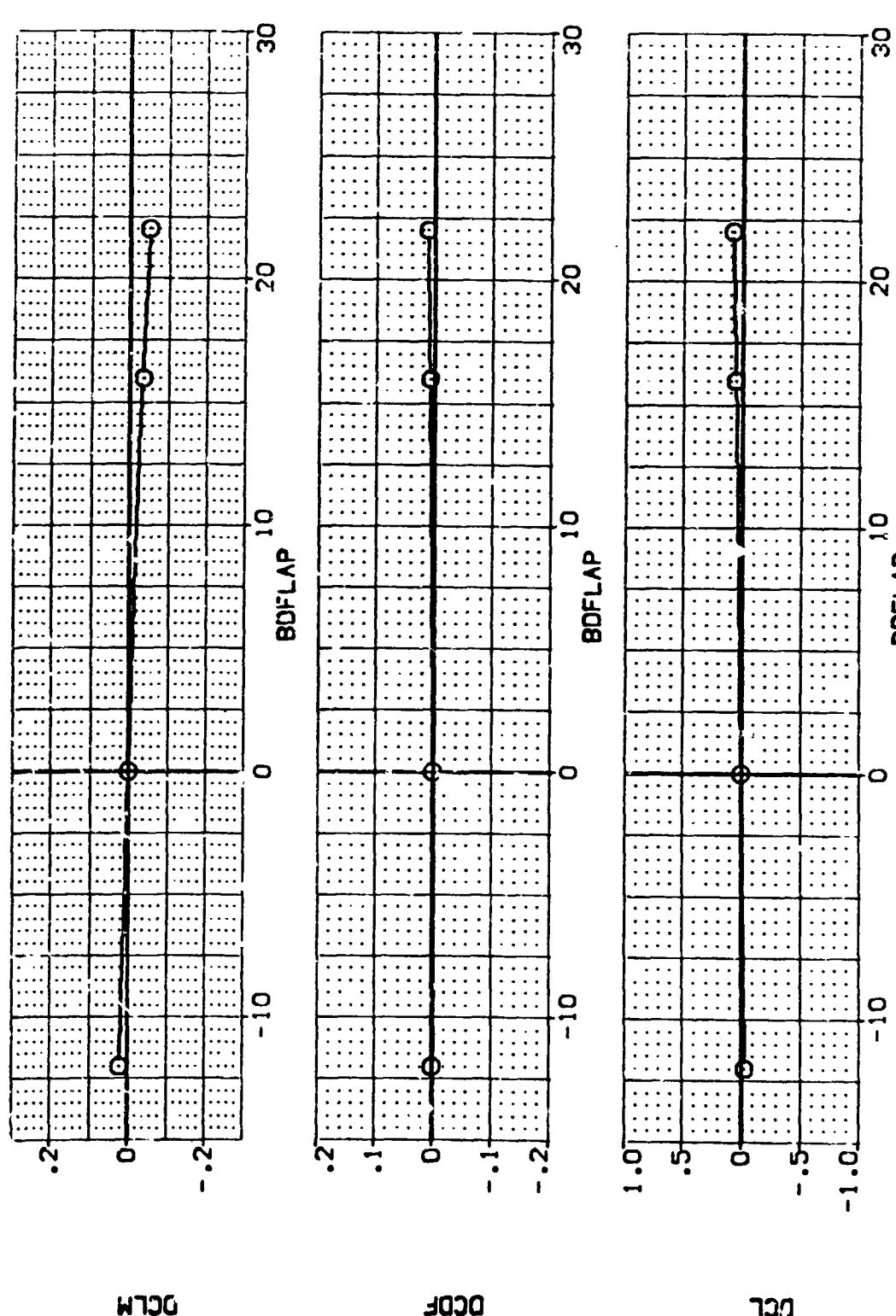


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE



0A62B B26C9 M7F8 W116E28V8R5X9

50C

ALPHA  
10.0001

**MACH  
AILEON  
SPD80K**

PARAMETRIC VALUES

DATA SOURCE	DATASET
BOFLAP	.000
	.000
	.000

DATA SOURCE	DATASET	BOFLAP	SREF
BOFLAP	J02/35	.000	LBFF
12.000	J02/37	22.000	LBFF
16.000			YHPS
			YHPS
			ZHPS
			SCALE

4.4119	50 FT.
19.2259	INCHES
37.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

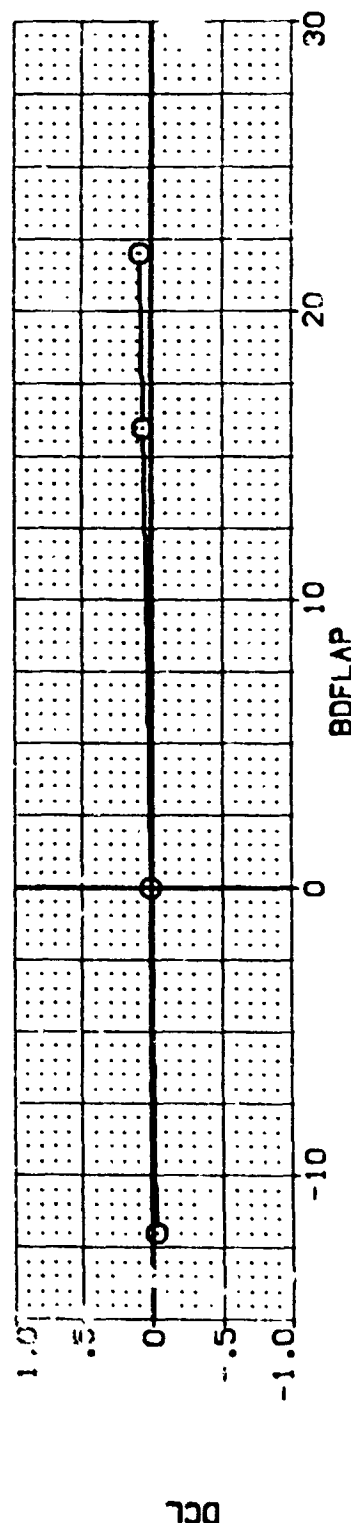
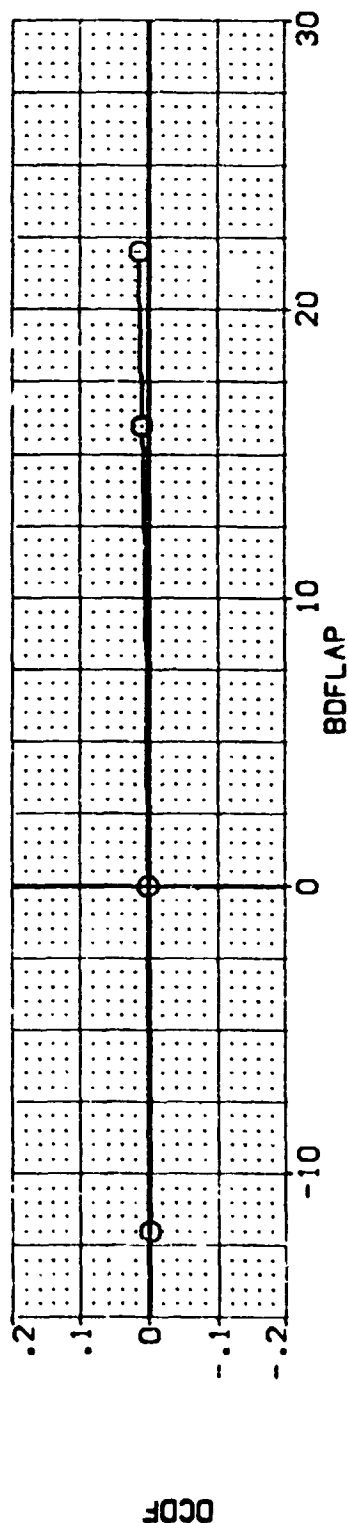
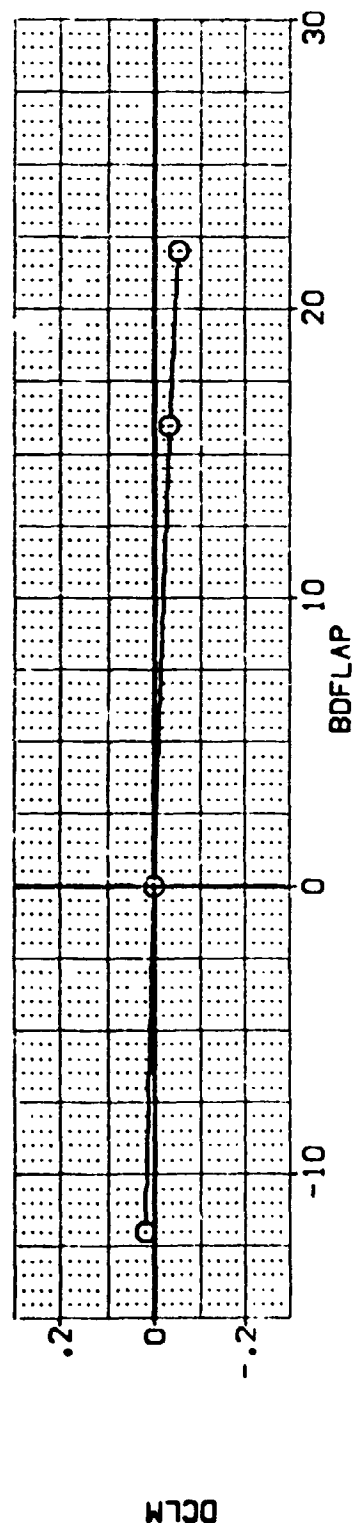


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (JDZ117)

SYMBL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	BDFLAP	REF	REFERENCE INFORMATION
0	12.000	A1LRON	.200 NELVN	BDFLAP	JDZ117	0.000	4.4119	50. FT.
		SPDRK	.000 RUDDR	12.000	JDZ136	22.000	19.2299	INCHES
			25.000 BETA	16.000			37.5559	INCHES
							43.5574	INCHES
							15.0000	INCHES
							15.1875	INCHES
							SCALE	SCALE

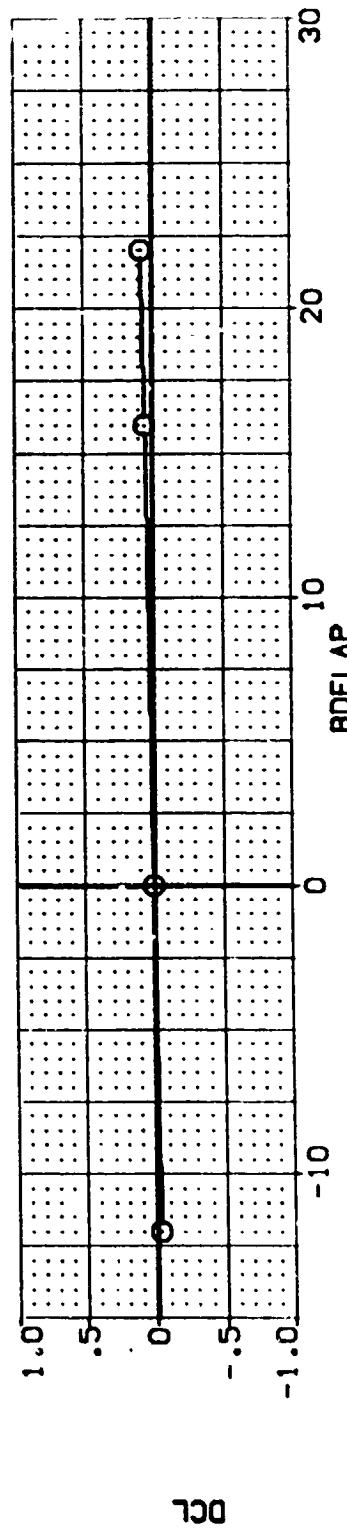
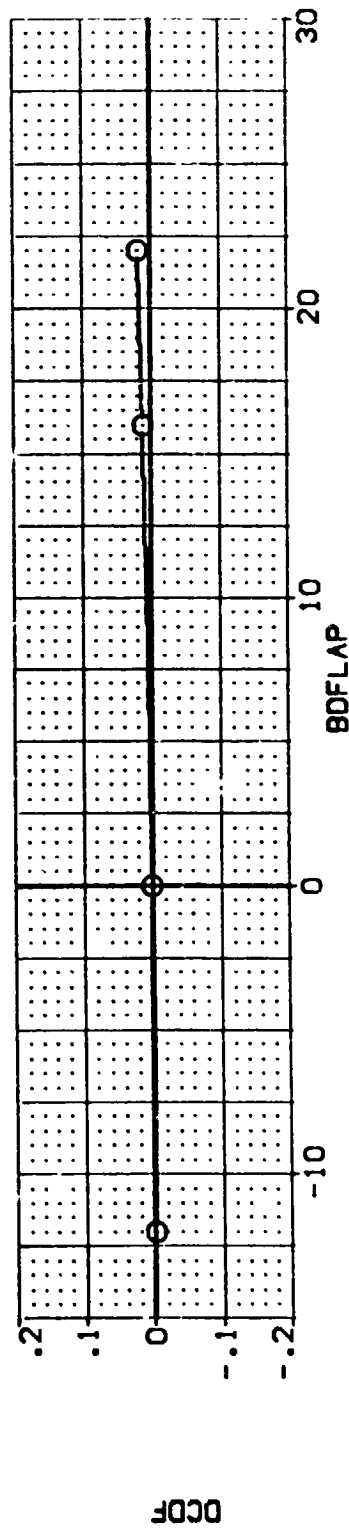
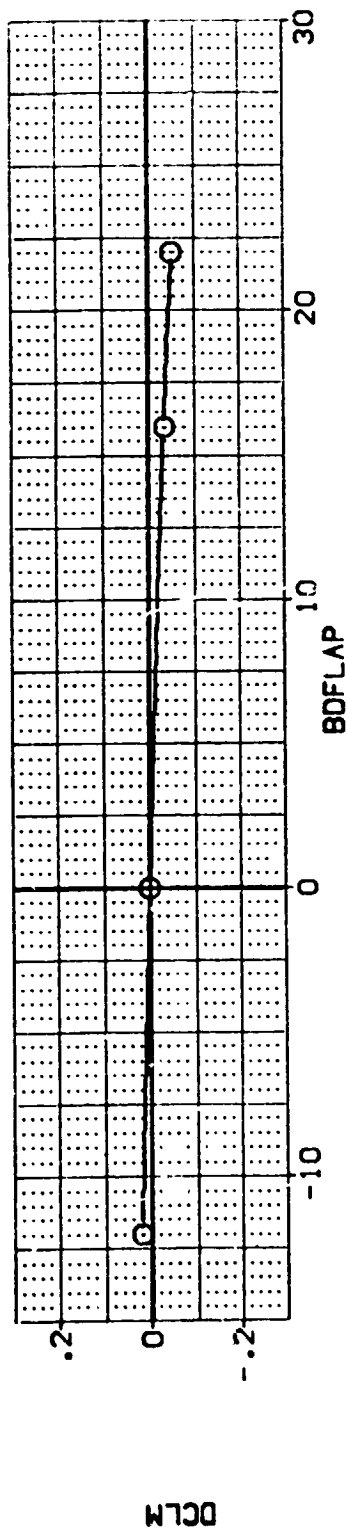


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

44

0A62B B26C9 M7F8 W116E28V8R5X9 (JDZ117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	BDFLAP	REFERENCE INFORMATION
0	14.000	A1LR0N	.200 DELVON	.000 JDZ117	.000 JDZ135	.000	SO.FT. 4.4118
		SPDRK	.000 RUDDER	.000 JDZ136	.000	.000	INCHES 19.2238
			25.000 BETA		22.000	22.000	INCHES 37.9359
							INCHES 43.5974
							INCHES 0.0000
							INCHES 15.1875
							SCALE .0405

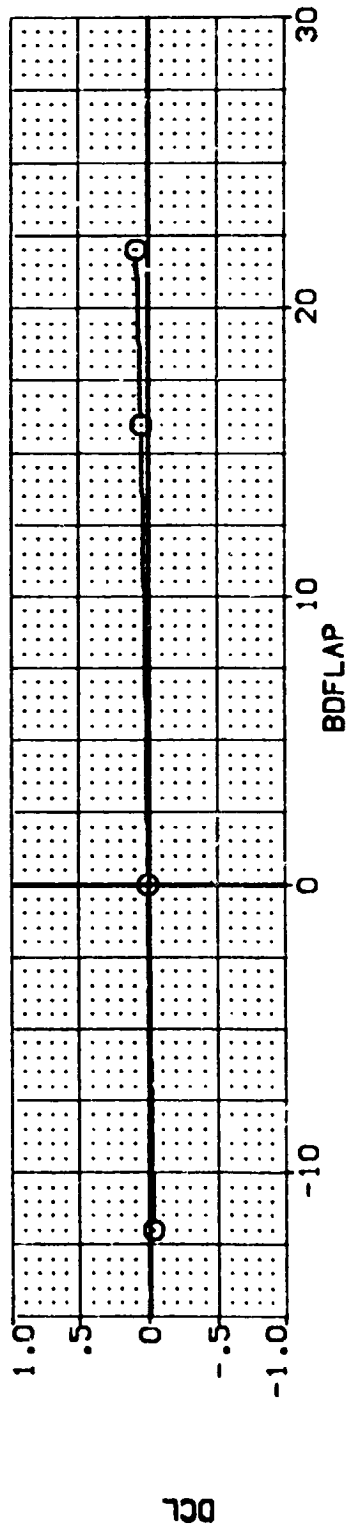
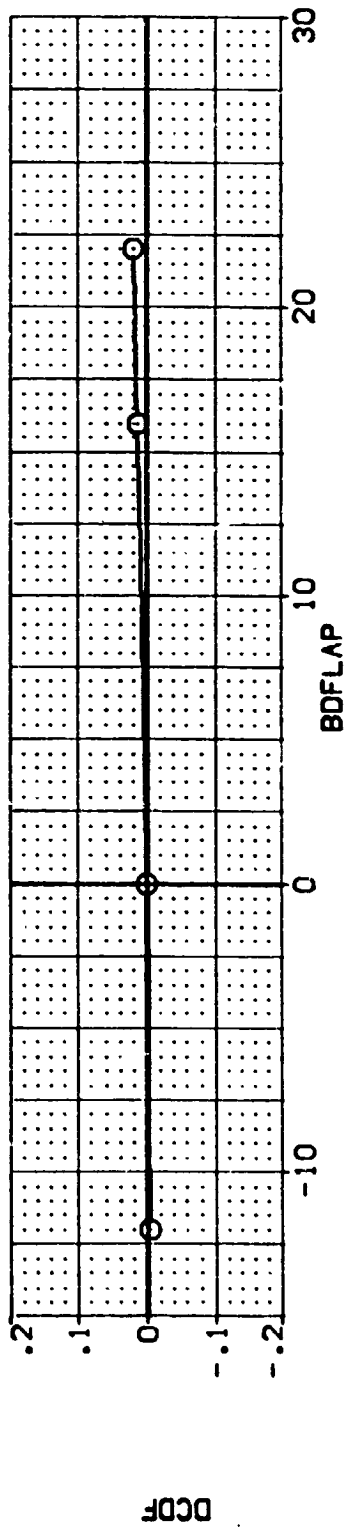
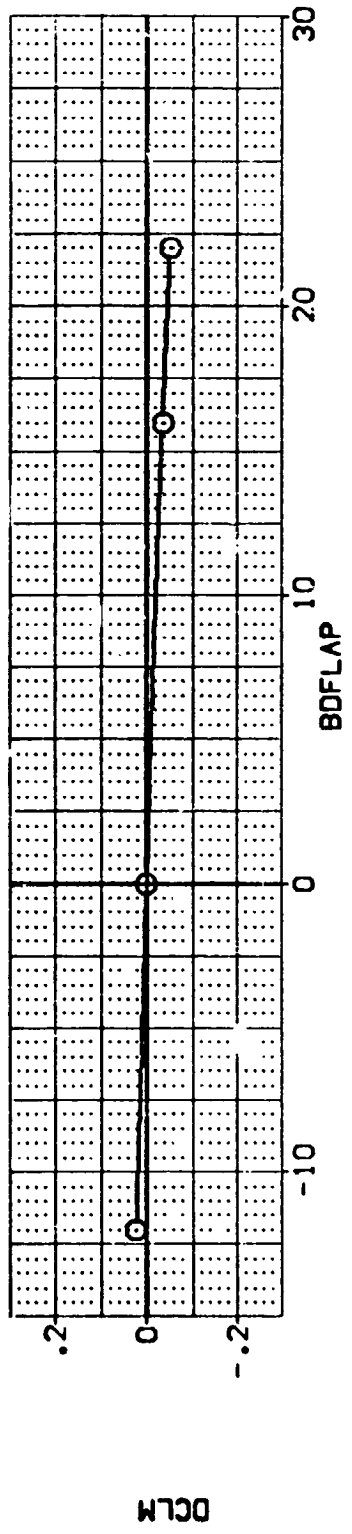


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (JDZ117)  
 SYMBOL ALPHA 16.000  
 O

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
MACH	.200	DEL / ON	BOFLAP	SREF	50. FT.
AIRLON	.000	RUDER	BOFLAP	UREF	19.2259
SPDRK	25.000	BETA	BOFLAP	BREF	37.9359
			BOFLAP	XREF	43.5974
			BOFLAP	YREF	15.0000
			BOFLAP	ZREF	15.1875
			BOFLAP	SCALE	.0405

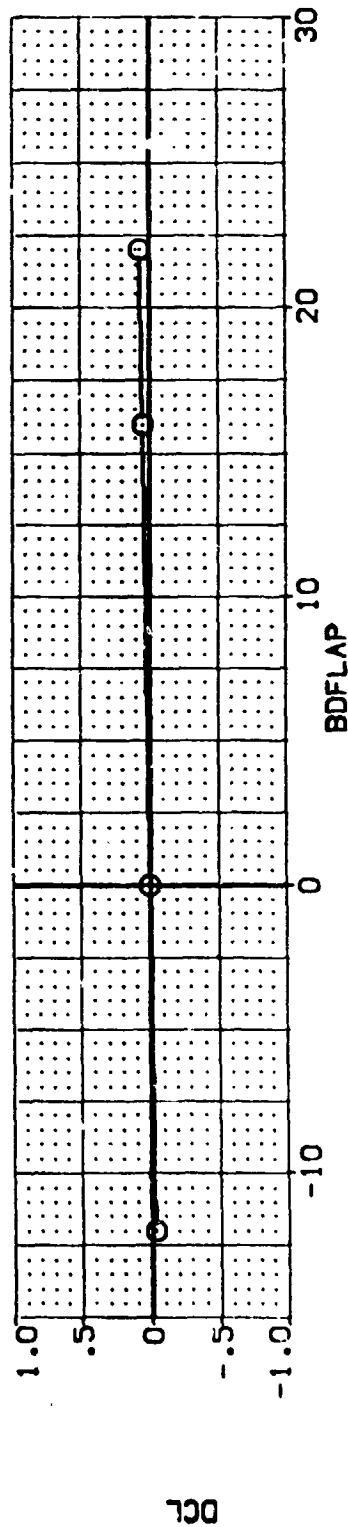
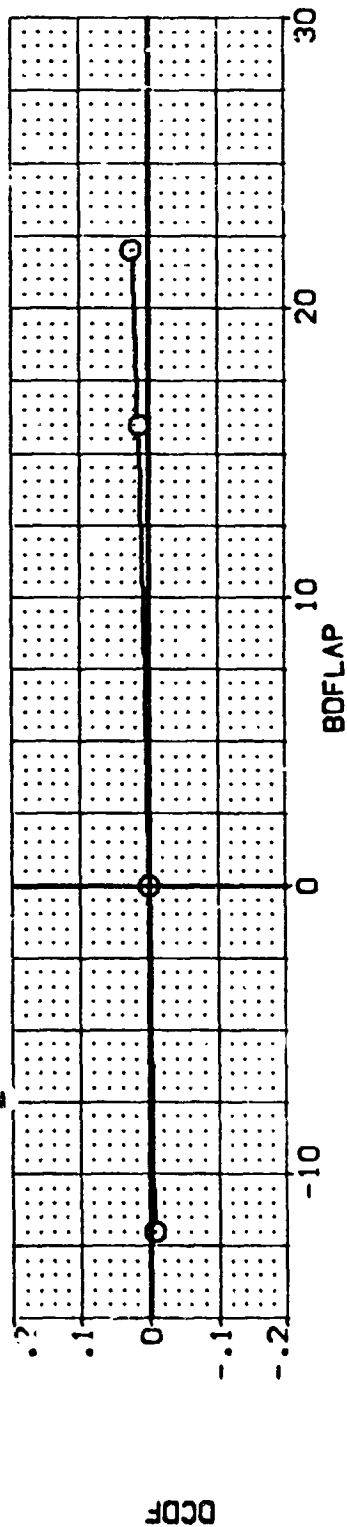
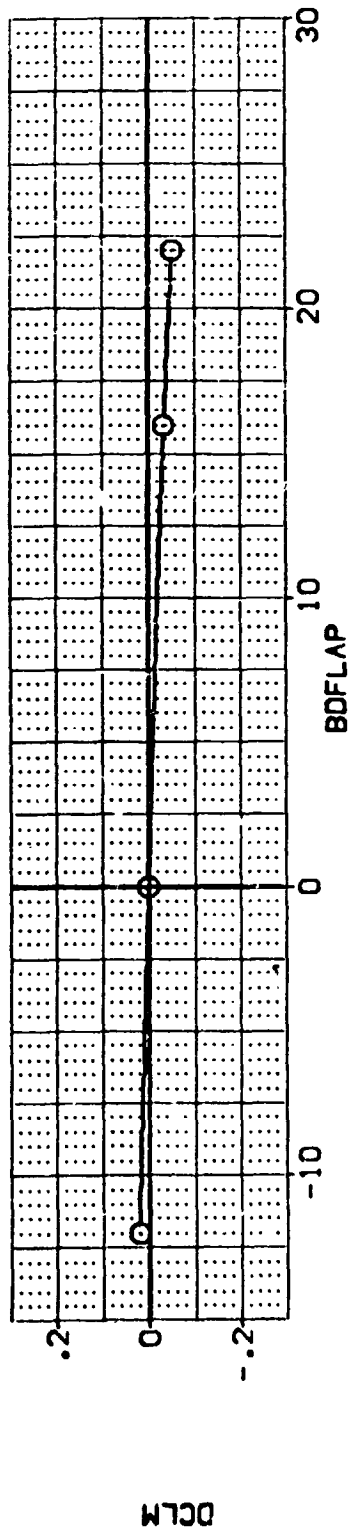


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE



0A62B B26C9 M7F8 W116E28V8R5X9 (JDZ117)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
O	18.000	MACH	.200	DEL VON	.000	BDFLAP	0.000
		AILURON	.000	RUDDER	.000	LNREF	19.2298
		SPDRX	25.000	BETA	.000	BDREF	37.9359
						YREF	43.5974
						ZREF	.0000
						YPRP	15.1875
						ZPRP	.0405
						SCALE	

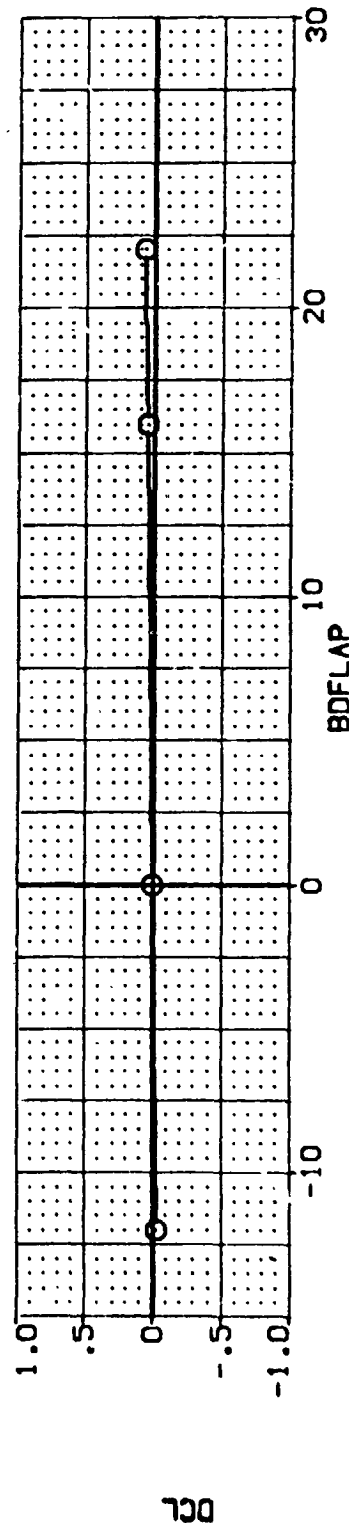
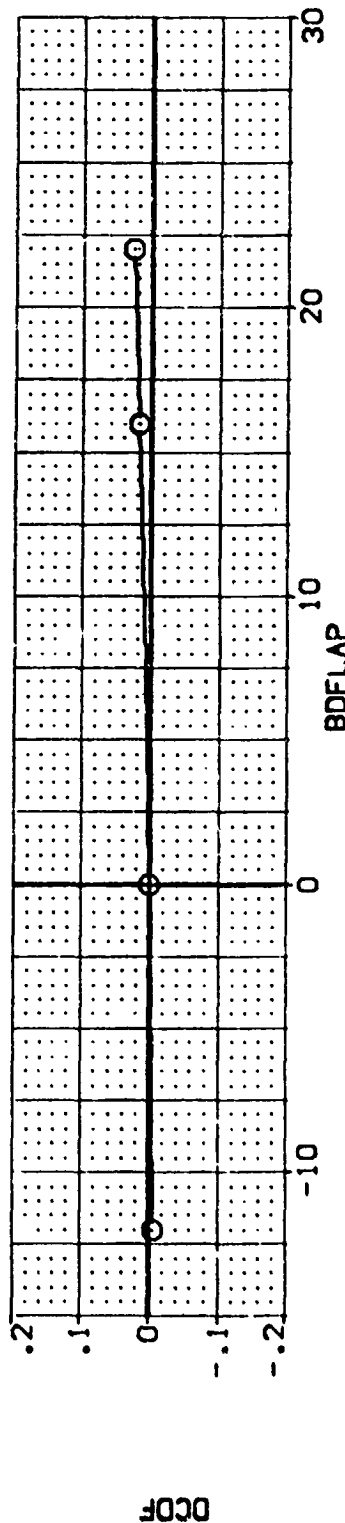
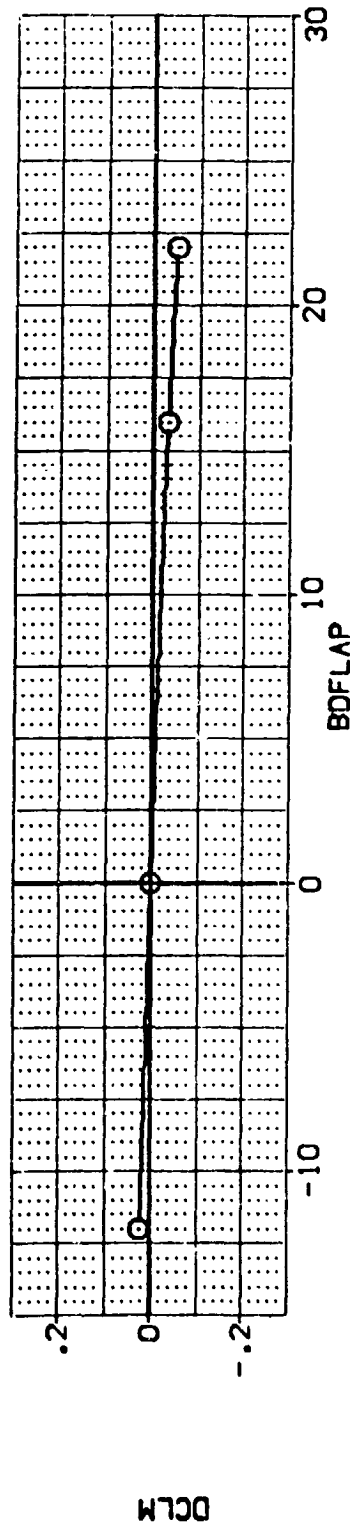


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (JDZ117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	BOFLAP	REF	REFERENCE INFORMATION
O	20.000	0.000	DELTA	BOFLAP	JDZ117	22.000	4.4119	50. FT.
		0.000	RUDDER	-12.000	JDZ135	300	19.2288	INCHES
		25.000	BETA	16.000	JDZ137	22.000	37.9358	INCHES
							43.5574	INCHES
							15.0000	INCHES
							15.1875	INCHES
							.0405	SCALE

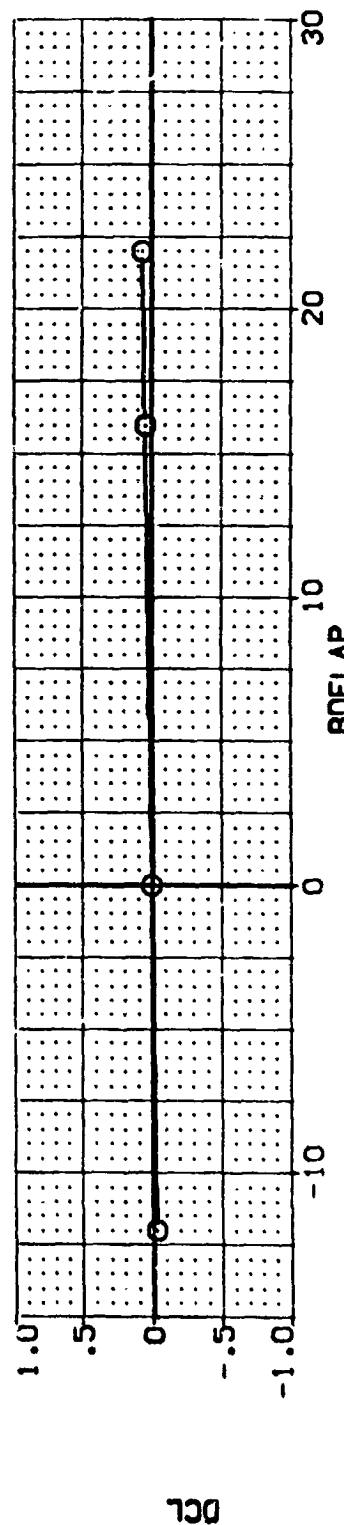
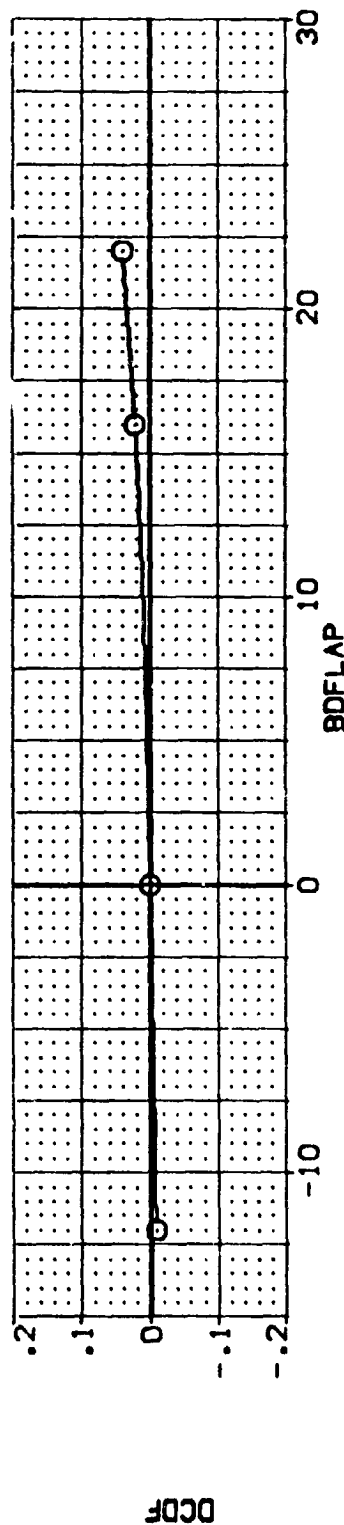
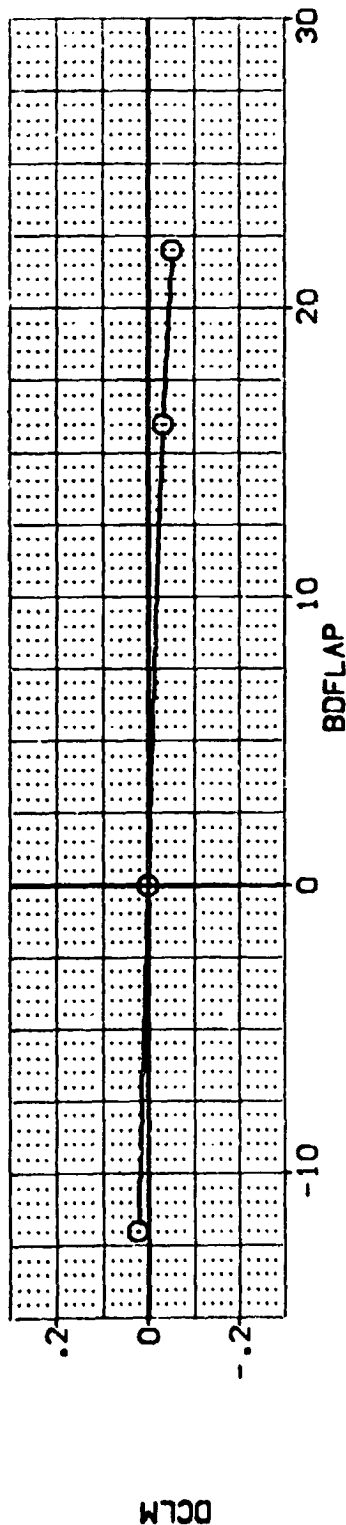
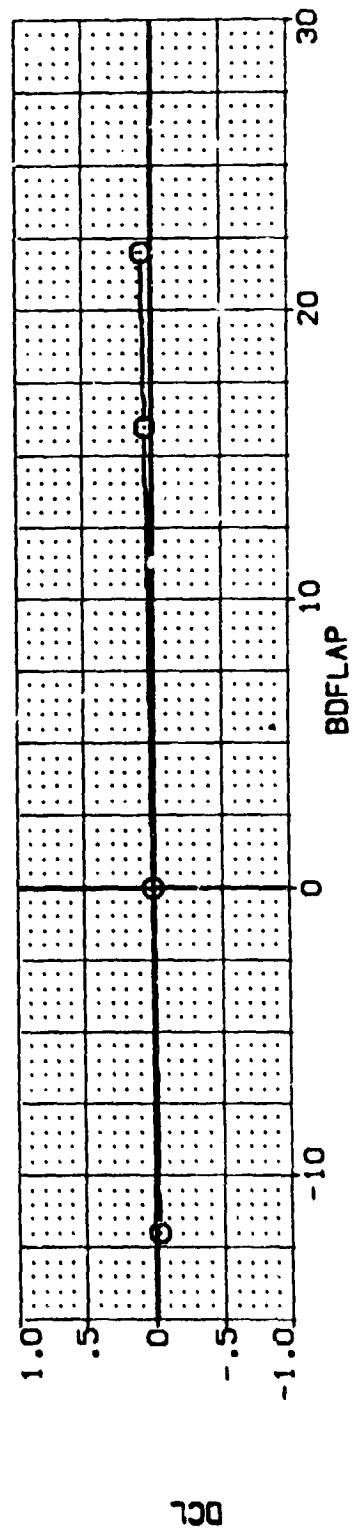
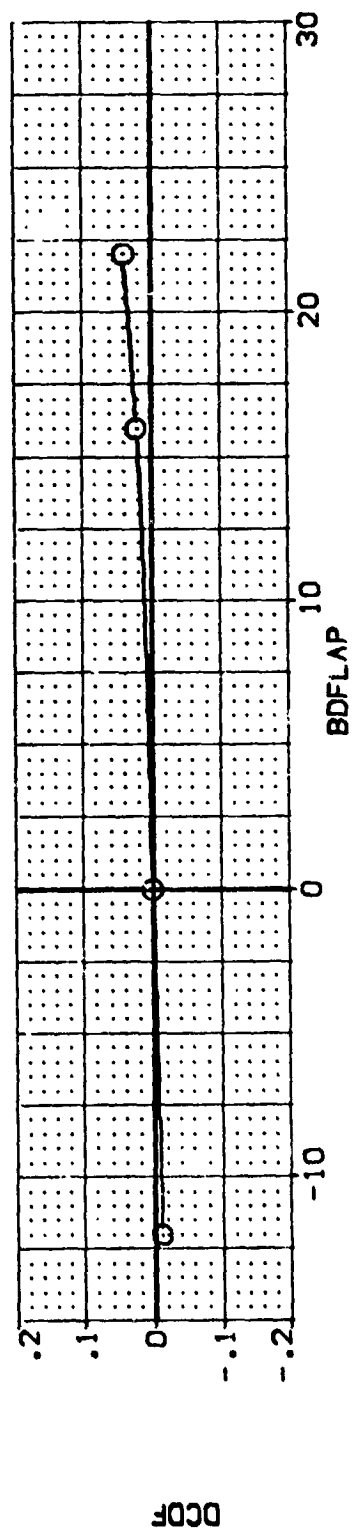
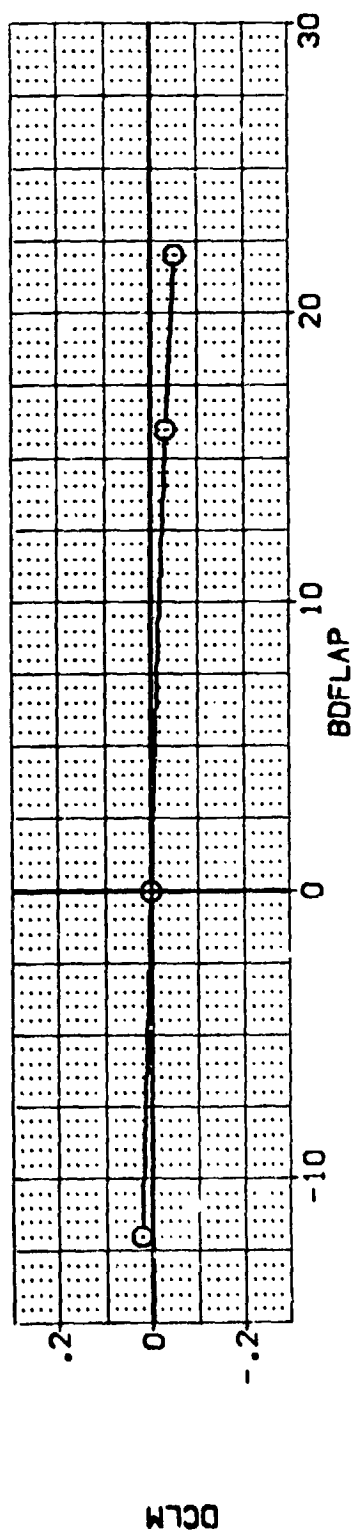


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		BOFLAP		REFERENCE INFORMATION	
O	22.000	MACH	.200	DELVON	.000	DATASET	.000	BOFLAP	REF	50. FT.
		AIRLON	.000	RUDDER	.000	J02117	.000	LREF	19.2239	INCHES
		SPOBRK	25.000	BETA	.000	J02136	.000	REF	37.9359	INCHES
						J02137	22.000	YREF	43.5974	INCHES
								YPRP	.0000	INCHES
								ZPRP	15.1875	INCHES
								SCALE	.0405	SCALE



**FIG 49 BODY FLAP EFFECTIVENESS. 25 DEG. FLARE**

0A628 B26C9 M7F8 W116E28V8R5X9 (JDZ117)  
 SYMBOL ALPHA 24.000 MACH .200 DELVON .000 RUDDER 25.000 BETA .000  
 DATA SOURCE BOFLAP -12.000 JDZ117 .000 JDZ136 .000  
 REFERENCE INFORMATION  
 SQ.FT. 4.4119  
 INCHES 19.2268  
 INCHES 37.5359  
 INCHES 43.5974  
 INCHES .0000  
 INCHES 15.1875  
 INCHES .0405  
 SCALE

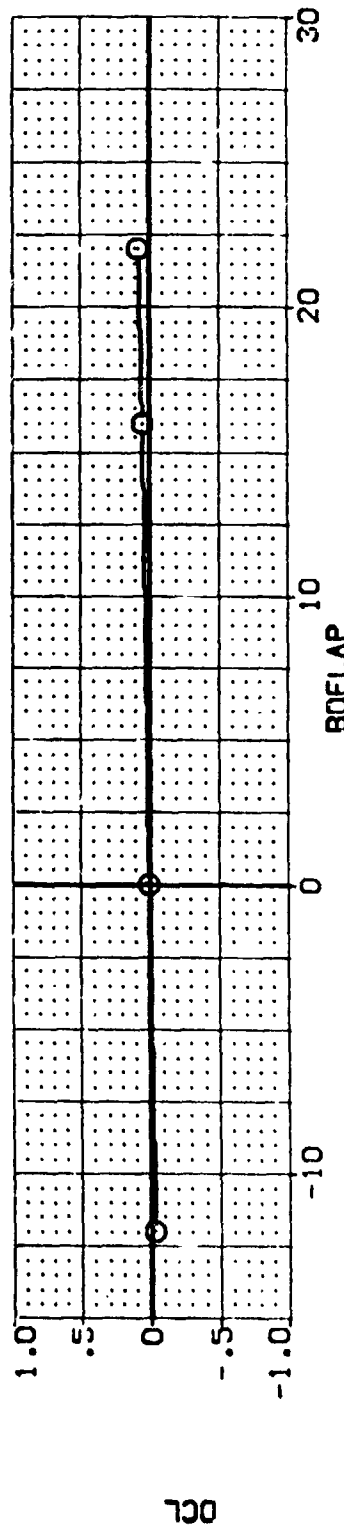
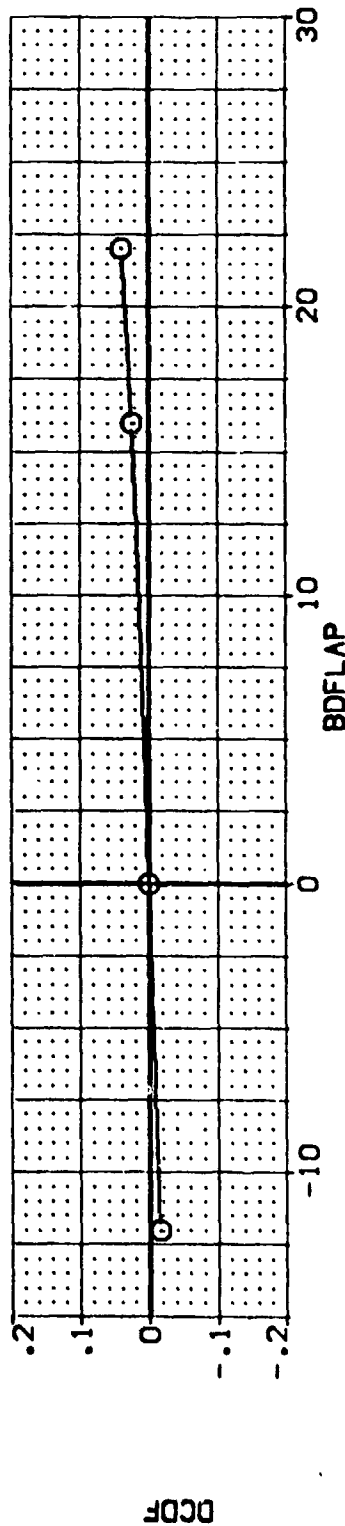
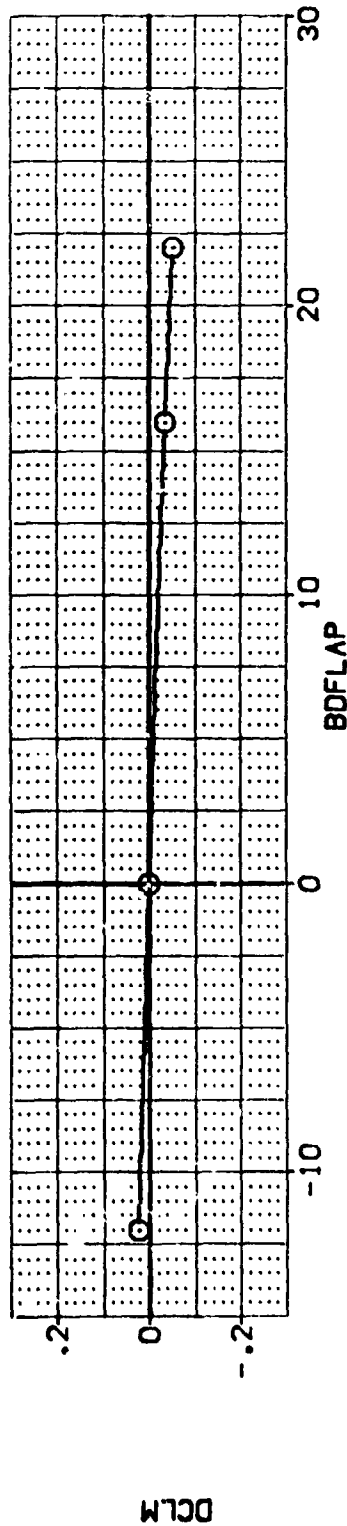


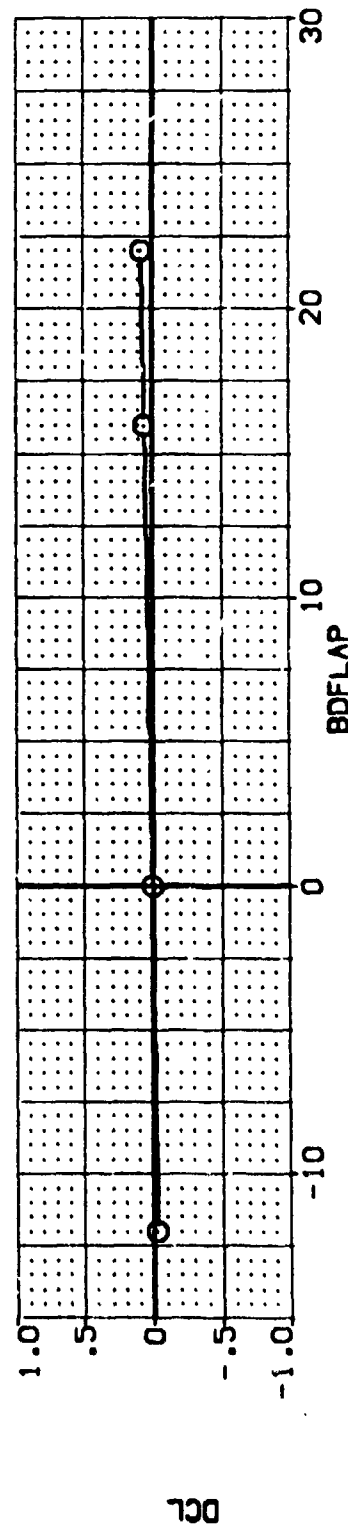
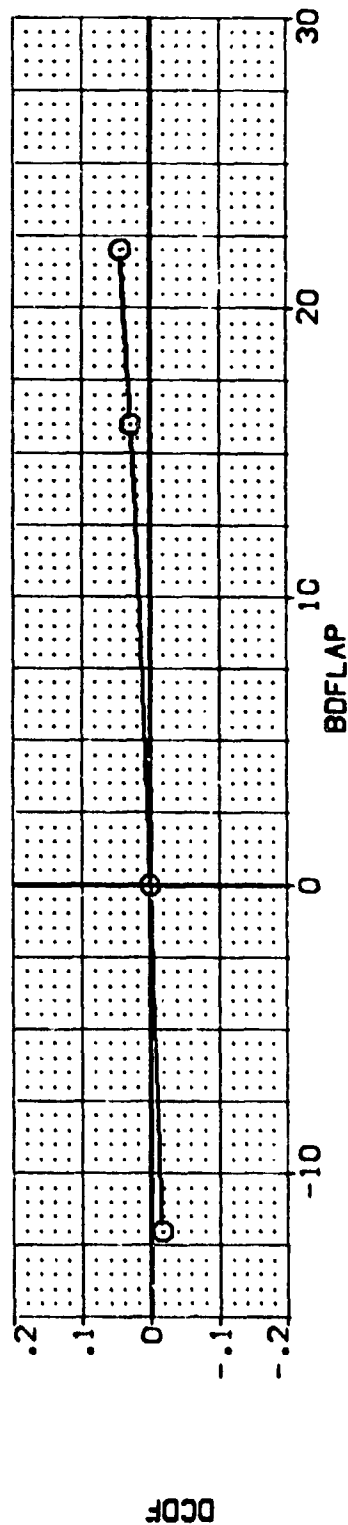
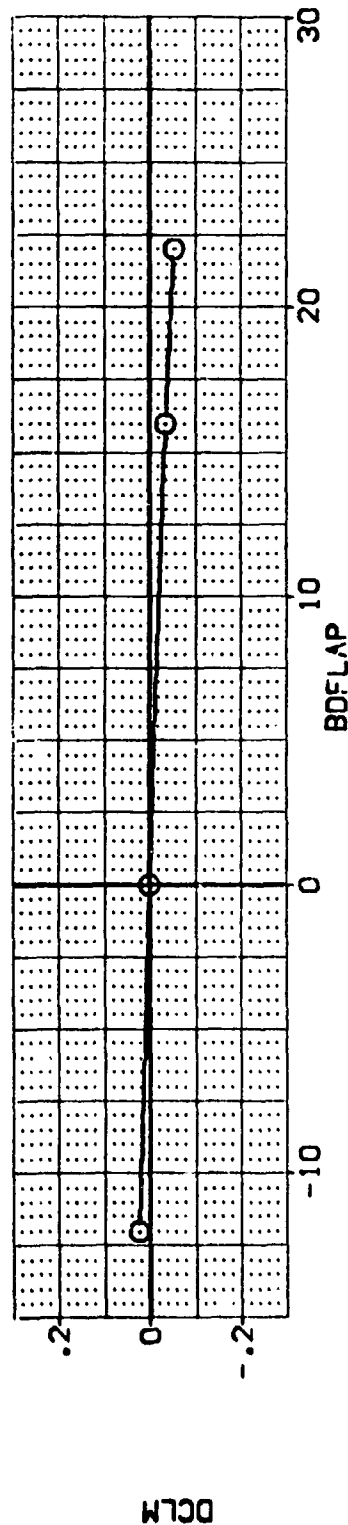
FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE



0A628 B2

00  
W3333

REFERENCE INFORMATION		50 FT.
4.4119		INCHES
19.2299		INCHES
37.9359		INCHES
43.5974		INCHES
.0000		INCHES
15.1875		INCHES
.0405		SCALE



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(JDZ117)

W116E28V8R5X9

M7F8

B26C9

QAG28

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
ALPHA	28.000	MAOH	.000	JDZ117	BOFLAP	SREF	50. FT.
AILRON	.200	DELVN	.000	JDZ117	BOFLAP	LREF	19.2299
SPDRK	.000	RUDDER	.000	JDZ136	BOFLAP	BREF	37.9359
	25.000	BETA	.000	JDZ136	BOFLAP	XREF	43.5974
					BOFLAP	YREF	15.1873
					BOFLAP	ZREF	15.1873
					BOFLAP	SCALE	.0405

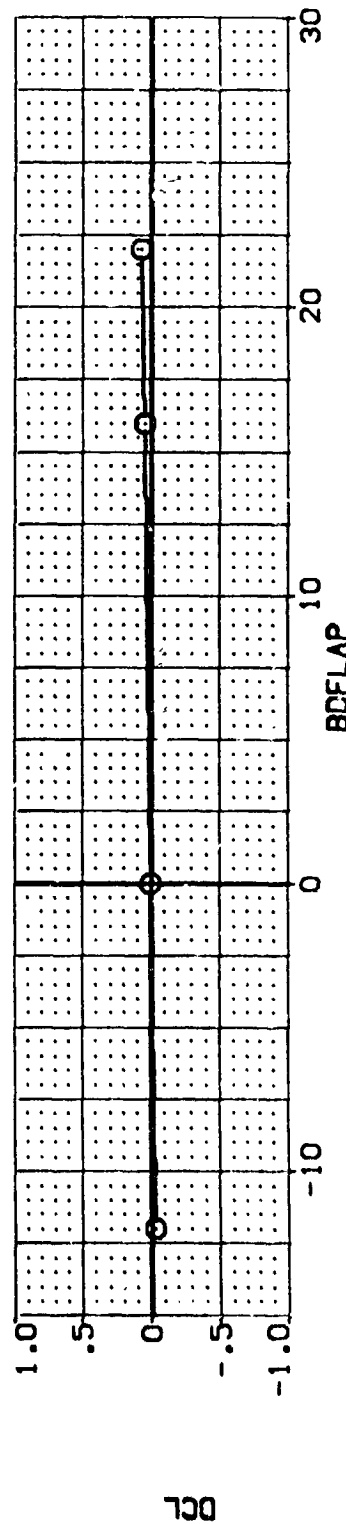
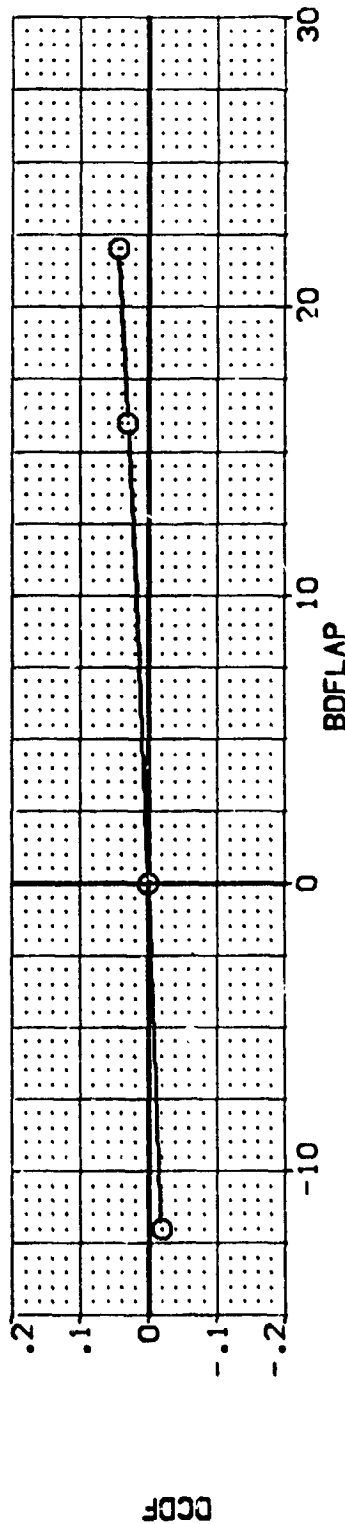
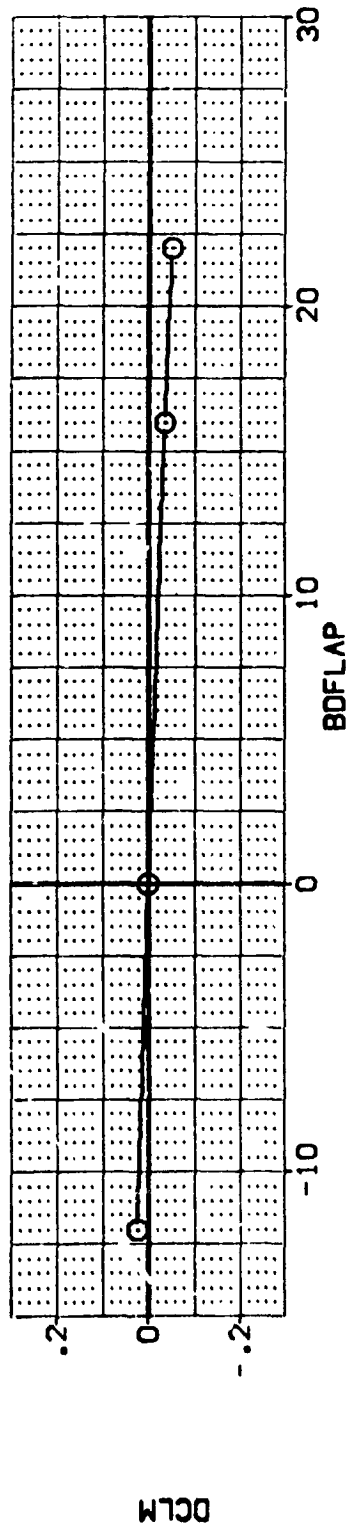


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE



0A62B B26C9 M7F8 W116E28V8R5X9 (JDZ117)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	30.000	.000	JDZ117	SD, FT.	4.4119
MACH	.200	.000	JDZ117	INCHES	19.2298
AILRON	.000	.000	JDZ135	INCHES	37.5353
SPDRK	25.000	.000	JDZ135	INCHES	43.5574
				INCHES	.0000
				INCHES	15.1875
				SCALE	.0405

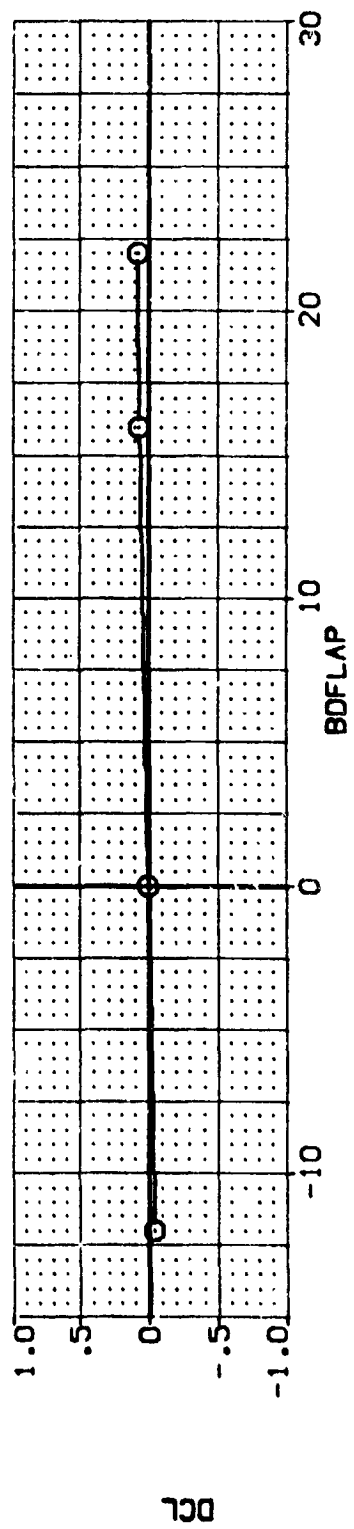
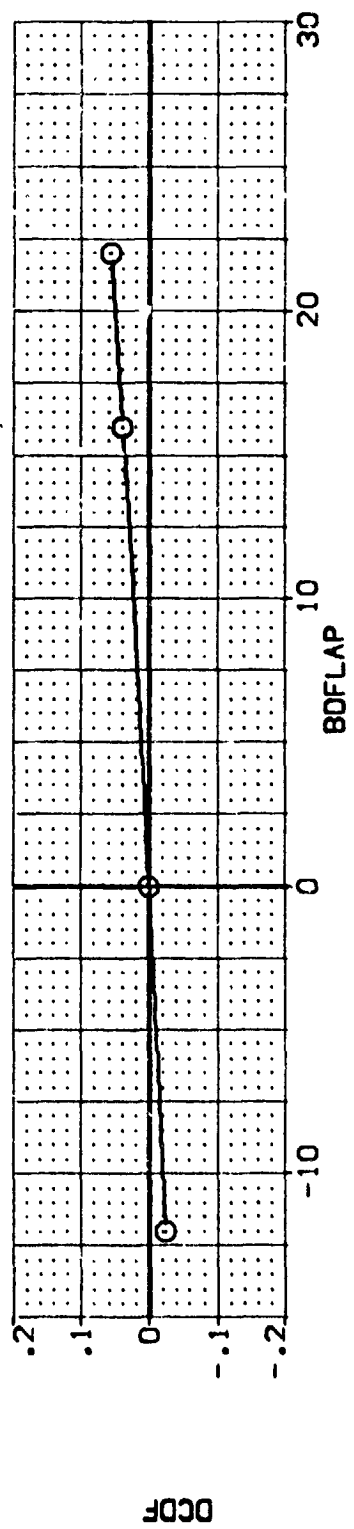
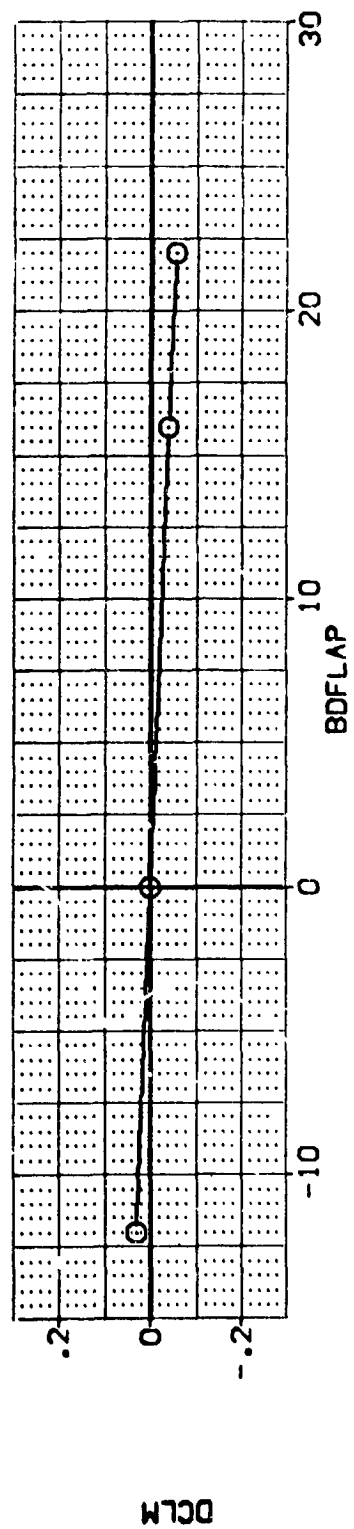


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

(JDZ117)

0A62B 826C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
		HACH	DELTA	DELTA	BOFLAP	DATASET	BOFLAP	SREF	SO.FT.	INCHES
0	-4.000	ALURCV	.000	RUDER	-12.000	JDZ117	.000	LREF	4.419	INCHES
		SPUBRK	.000	BETA	16.000	JDZ136	22.000	BREF	19.2299	INCHES
						JDZ137		XMRP	37.9359	INCHES
								YMRP	43.5974	INCHES
								ZMRP	.0000	INCHES
								SCALE	15.1875	SCALE
									.0405	

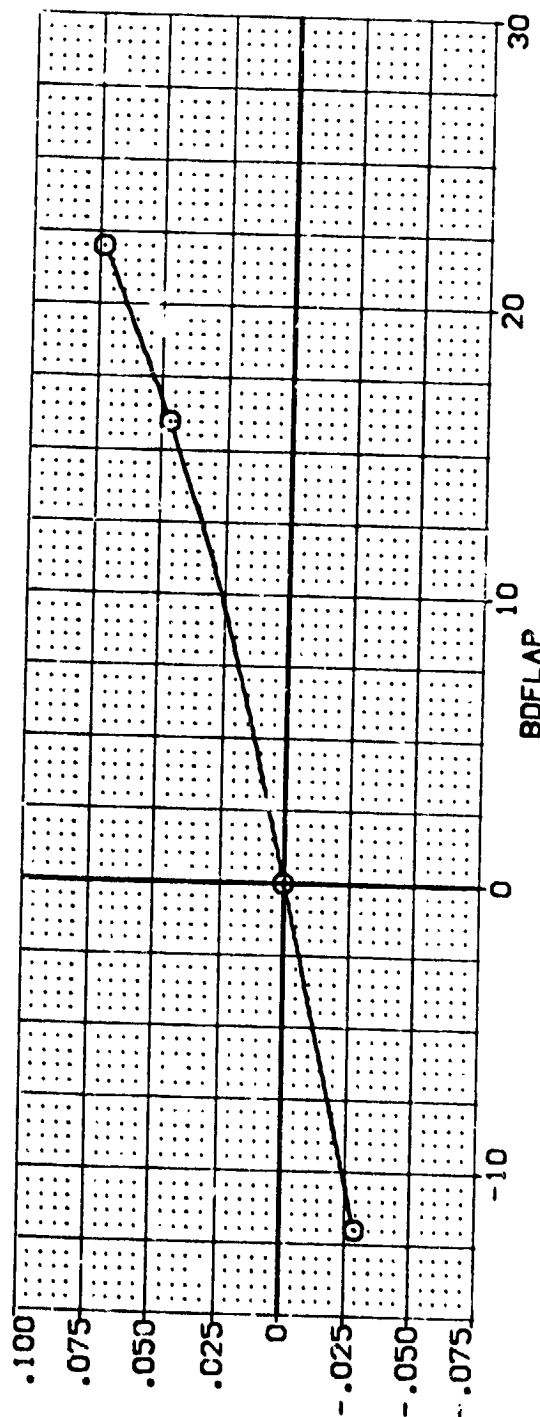
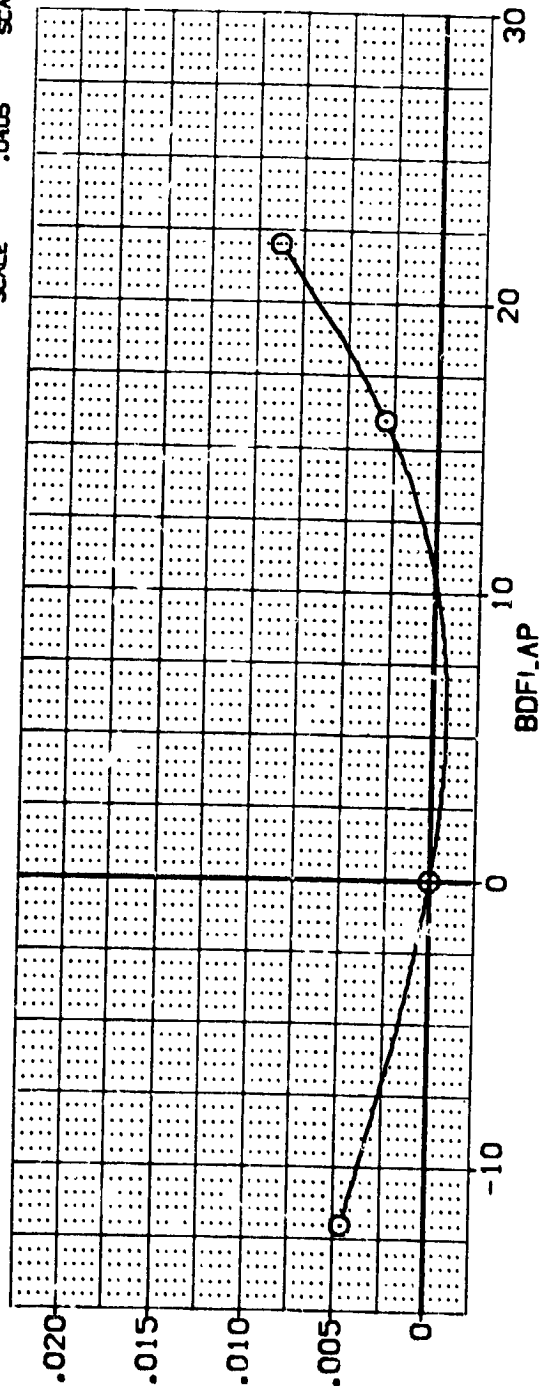


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

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(JDZ117)

0A628 526C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	AILRON	SPBRK	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	-2.000				.200 DELVN .000 RUDDER 25.000 BETA	.000 DATASET .000 JDZ117 .000 JDZ136	SO.FT INCHES INCHES INCHES INCHES SCALE
						BOFLAP -12.000 16.000	SRF LREF BREF XMRP YMRP SCALE
							4.4118 19.2299 37.9359 43.5974 .0000 15.1875 .0405

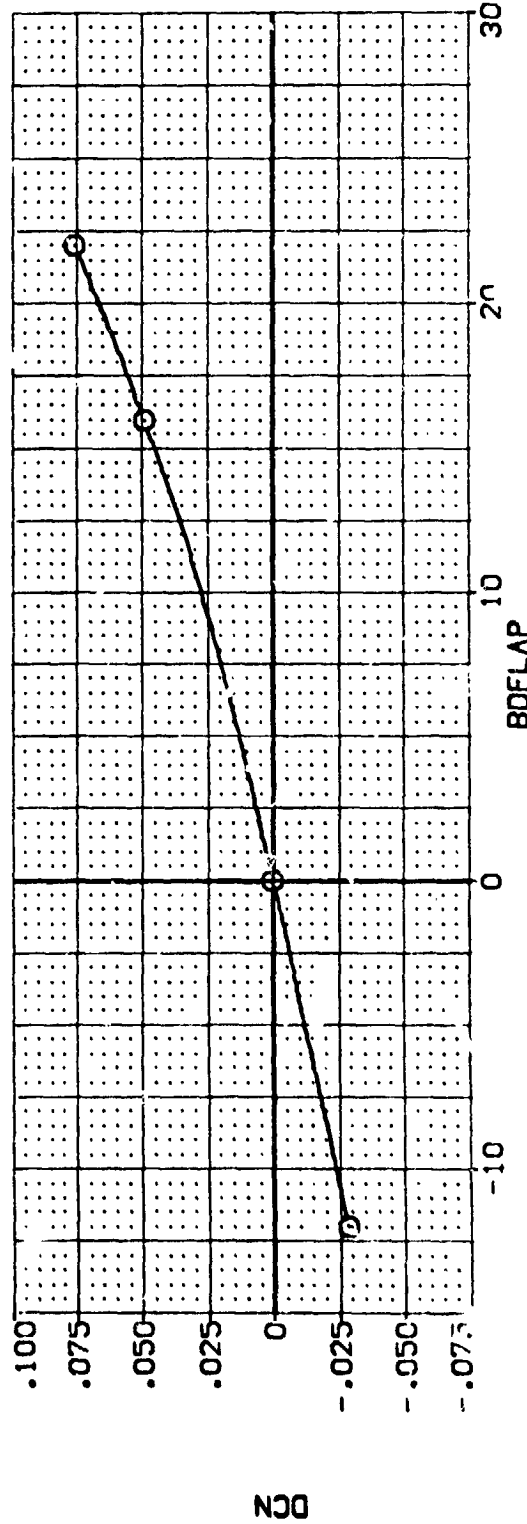
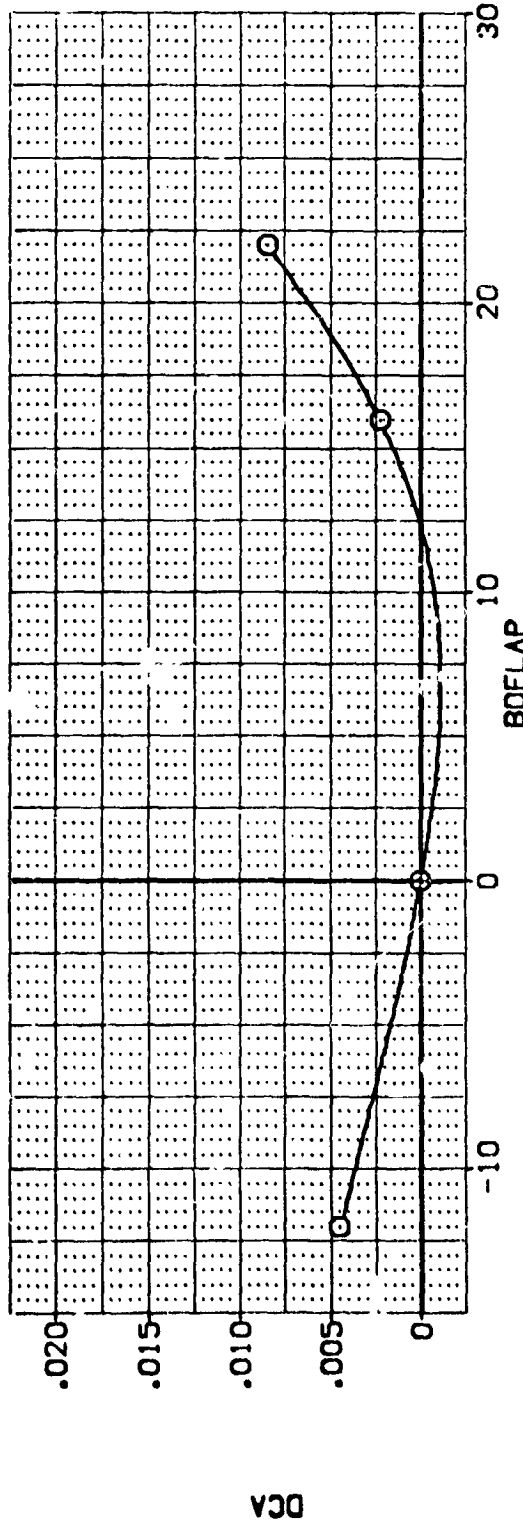
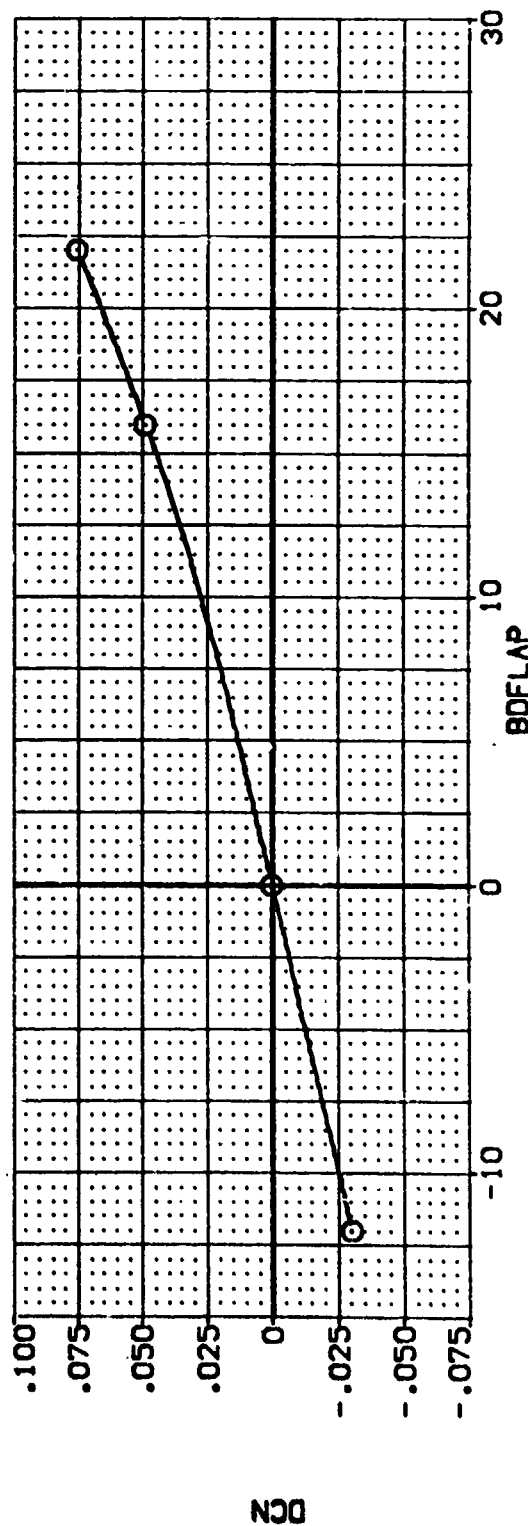
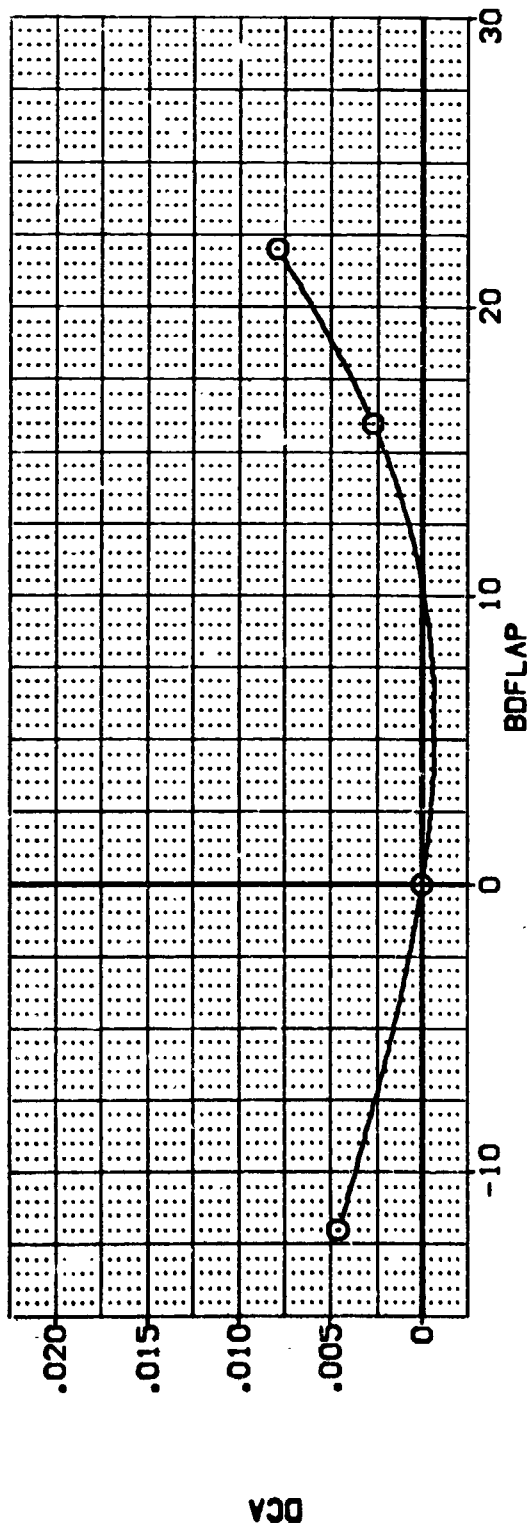
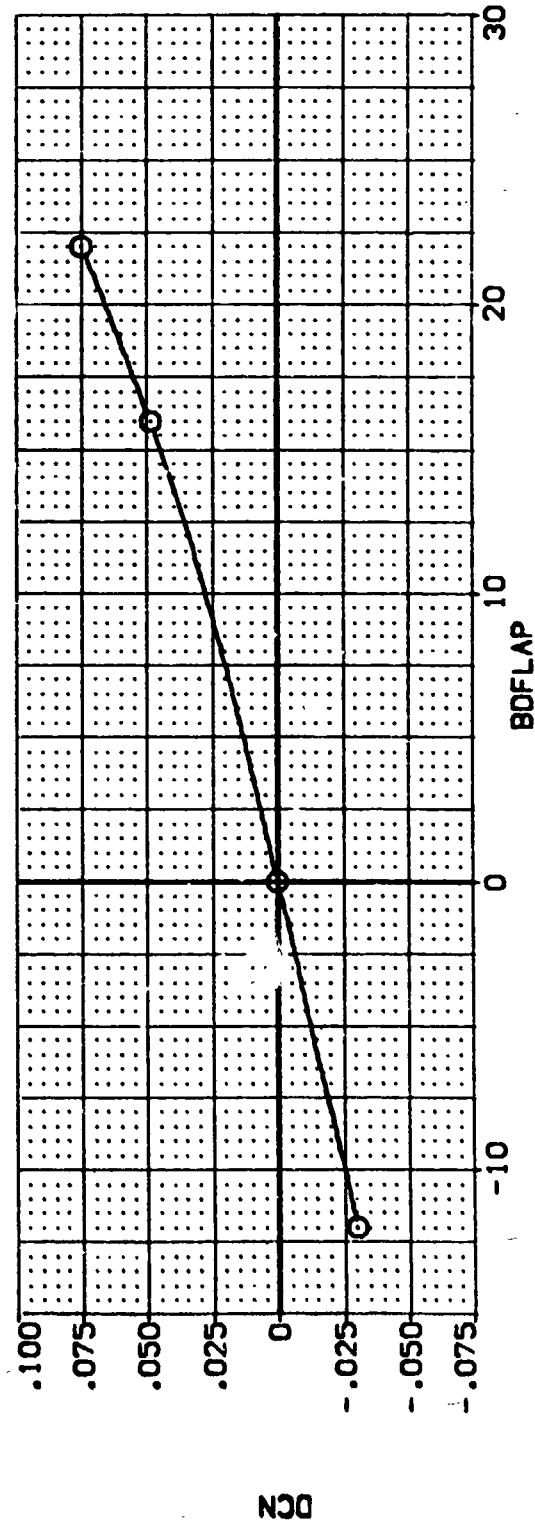
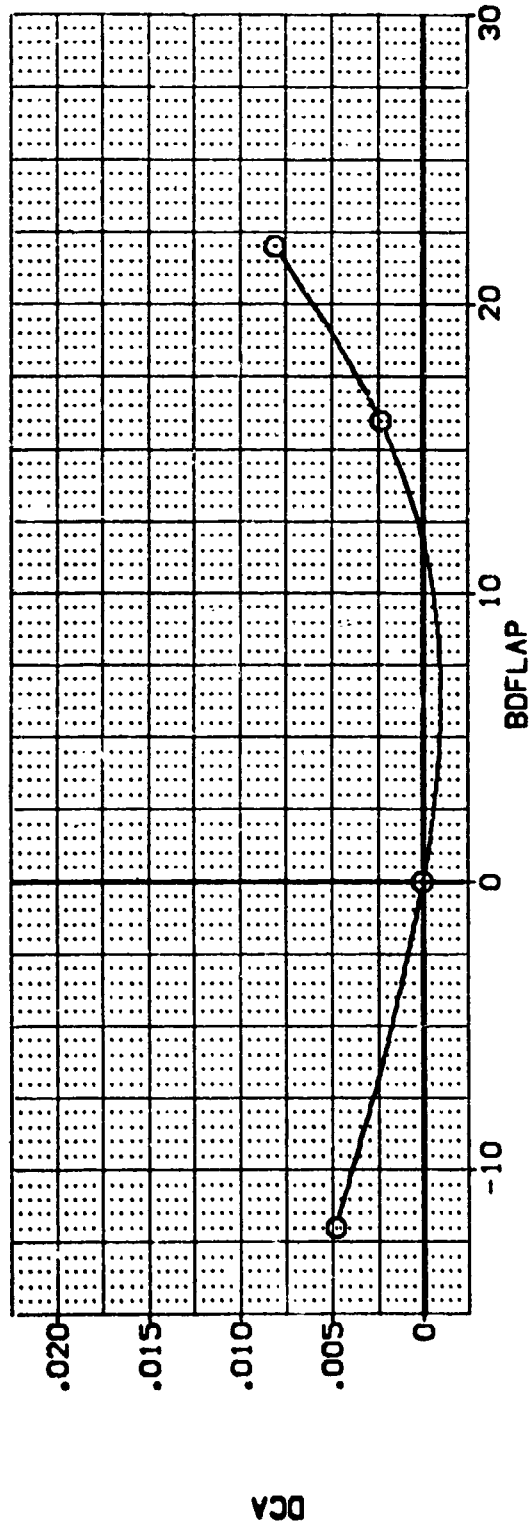


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9

[illegible]

**FIG 49 · BODY FLAP EFFECTIVENESS, 25 DEG. FLARE**

[illegible]

**PAGE 579**

0A628 B26C9 M7F8 W116E28V8R5X9 (JDZ117)  
 SYMBOL ALPHA 1.000 MACH .200 DELVON .000 DATASET JDZ117 DATA SOURCE BOFLAP -12.000 REF 4.4119 50.FT. INOE\$  
 AIRON 25.000 RUDDER .000 JDZ136 .000 JDZ135 JDZ137 19.2258 INOE\$  
 9DBRK BETA 25.000 .000 JDZ136 .000 JDZ135 JDZ137 37.9359 INOE\$  
 43.5974 INOE\$  
 15.0000 INOE\$  
 15.1875 INOE\$  
 .0405 SCALE

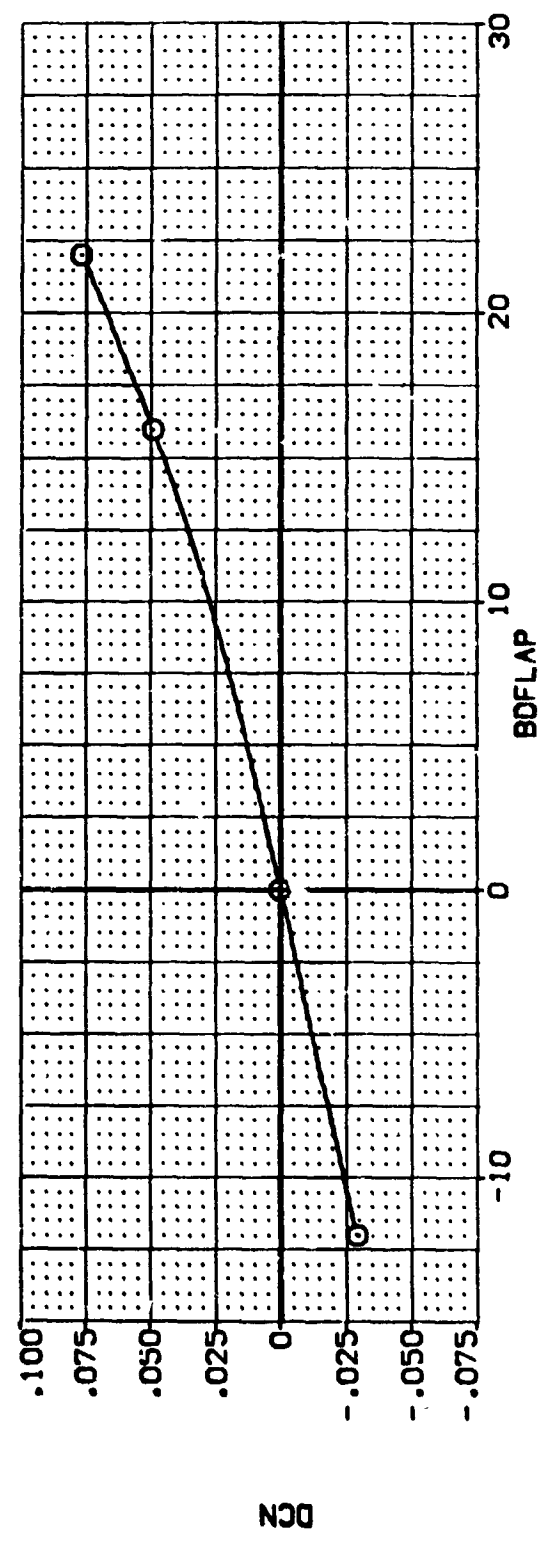
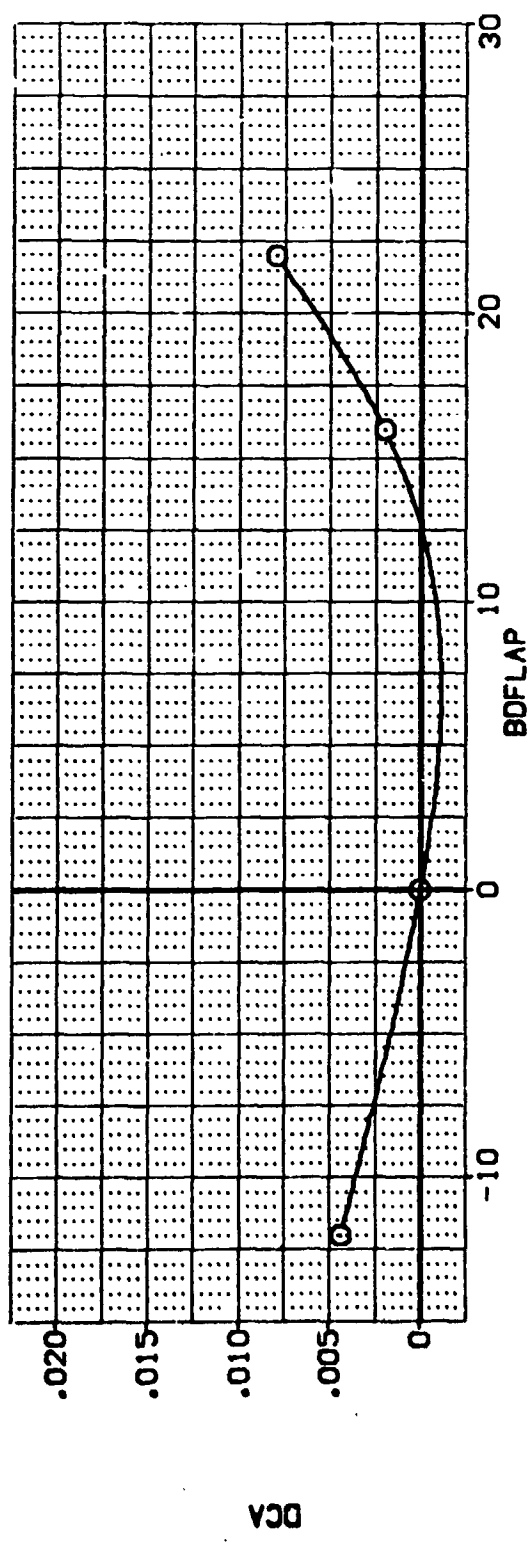


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (JDZ117)  
 SYMBL ALPHA 2.000  
 PARAMETRIC VALUES  
 MACH .200 DELVON  
 AILRON .000 RUDDER  
 SPOBRK 25.000 BETA  
 DATA SOURCE  
 DATASET BDFLAP  
 .000 JDZ117 -12.000  
 .000 JDZ136 16.000  
 REFERENCE INFORMATION  
 SREF 4.4119 SO.FT.  
 LREF 19.2299 INCHES  
 XREF 37.9359 INCHES  
 YREF 43.5974 INCHES  
 ZREF 0.000 INCHES  
 SCALE 15.1875 INCHES  
 .0405

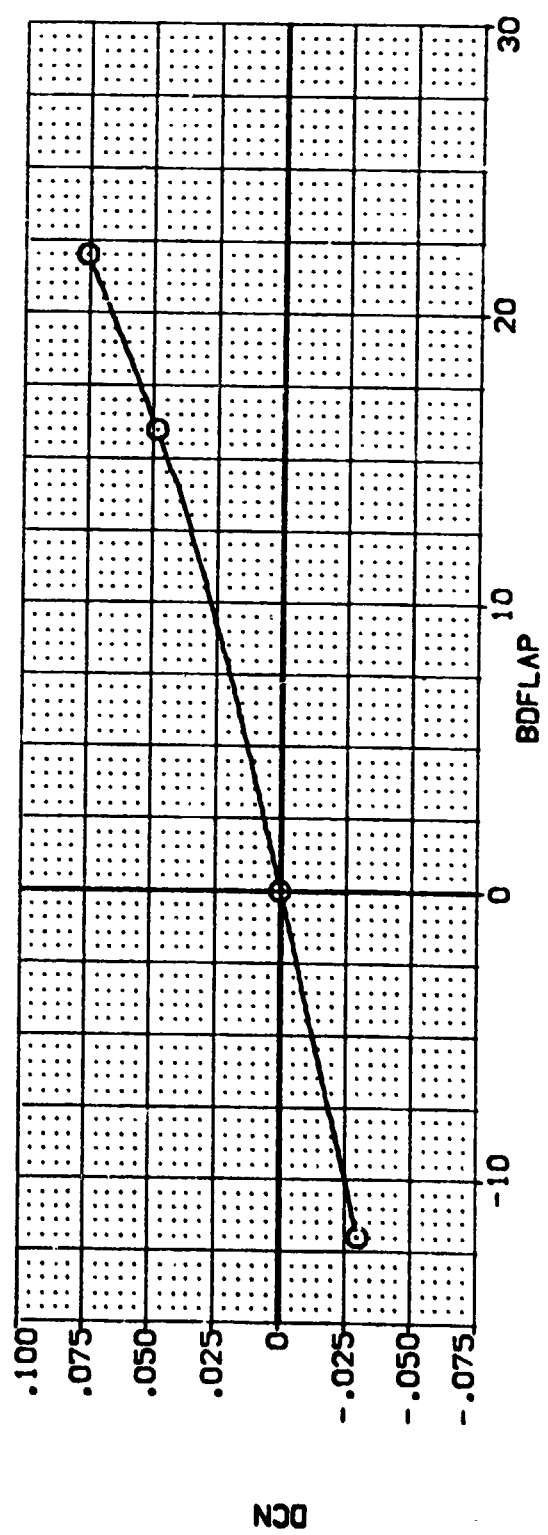
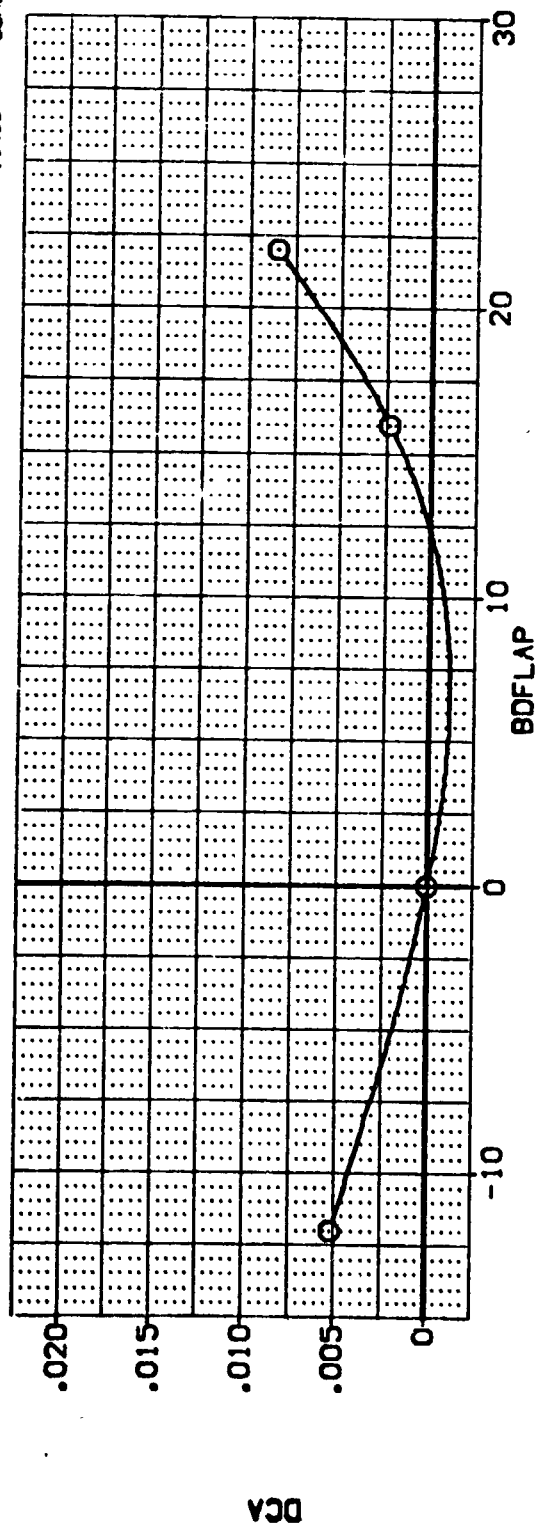


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

(JDZ117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
		MACH	DELTA	RUDDER	BDFLAP	DATA SET	BDFLAP	REF	SO. FT.	INCHES
0	4.000	.000	.000	.000	.000	JDZ117	.000	19.2289	INCHES	INCHES
		25.000	.000	.000	.000	JDZ136	22.000	37.9258	INCHES	INCHES
						JDZ137		43.5574	INCHES	INCHES
								.0000	INCHES	INCHES
								15.1875	INCHES	INCHES
								.0405	SCALE	SCALE

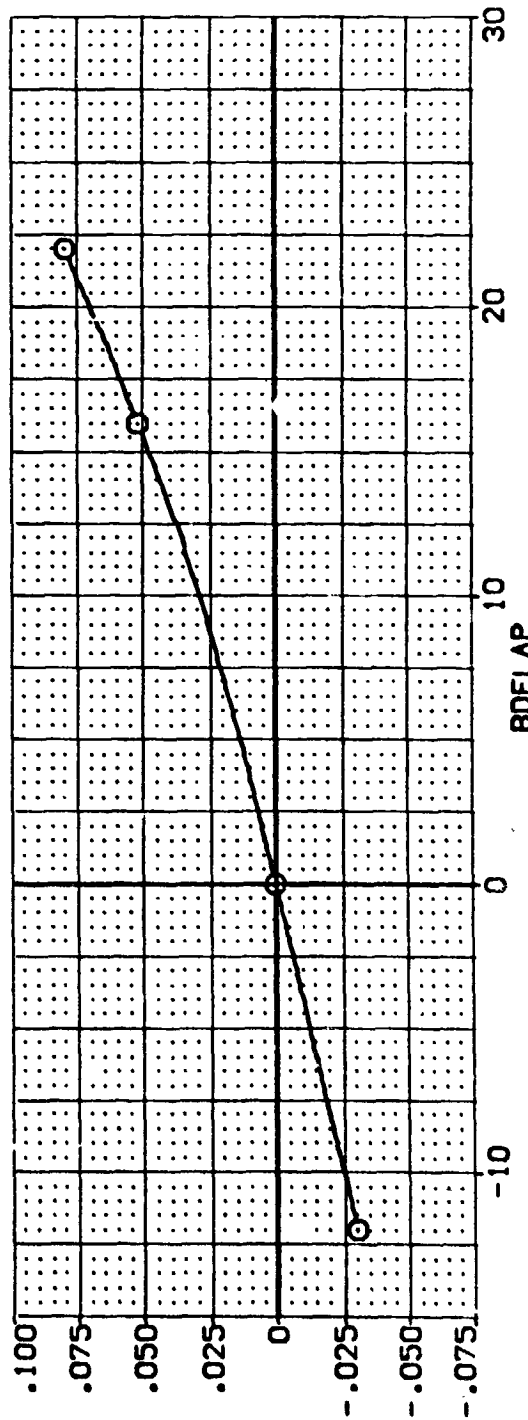
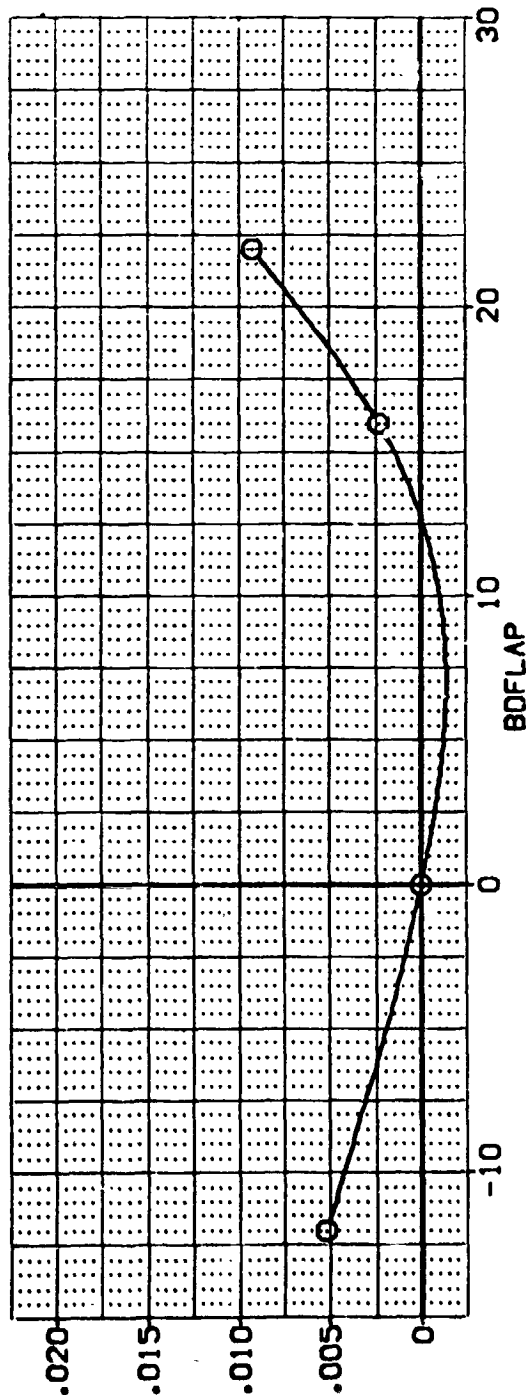


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

(J02117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	5.000	.200	DELTA	BDFLAP	SQ.FT.
		.000	RUDDER	J02117	INCHES
		25.000	BETA	J02136	INCHES
				J02137	INCHES
					INCHES
					INCHES
					INCHES
					SCALE

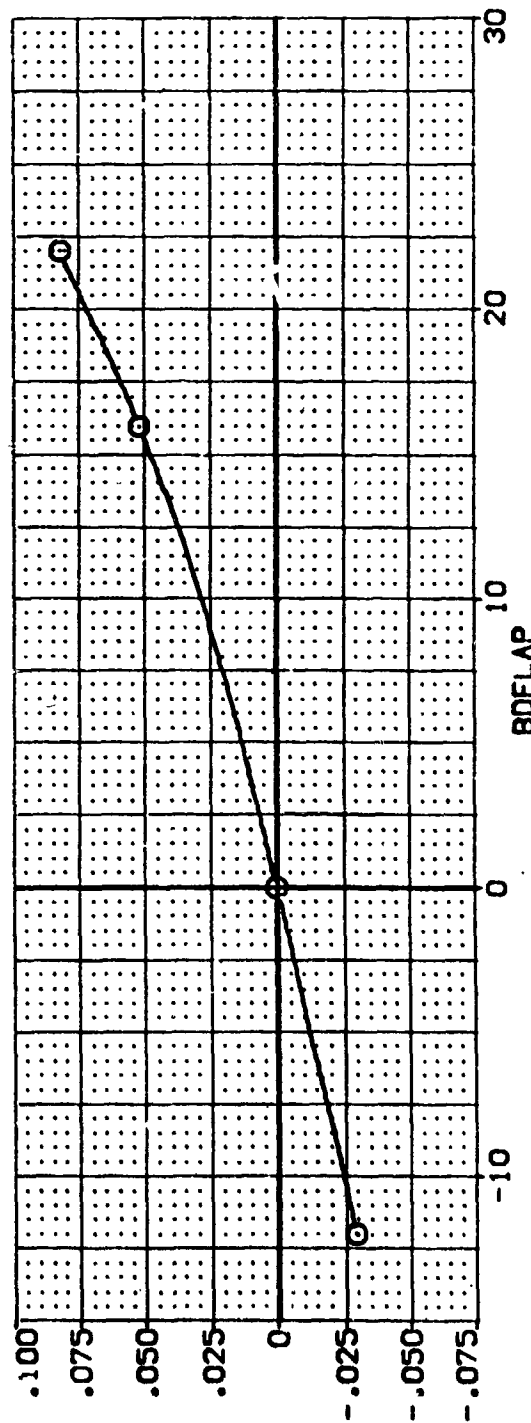
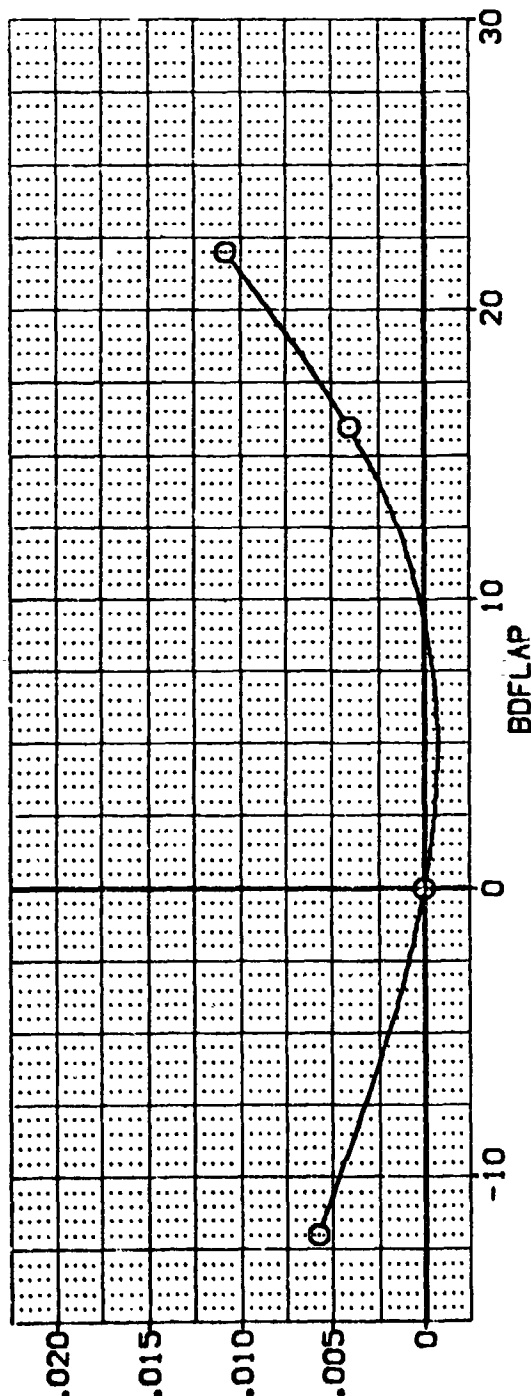
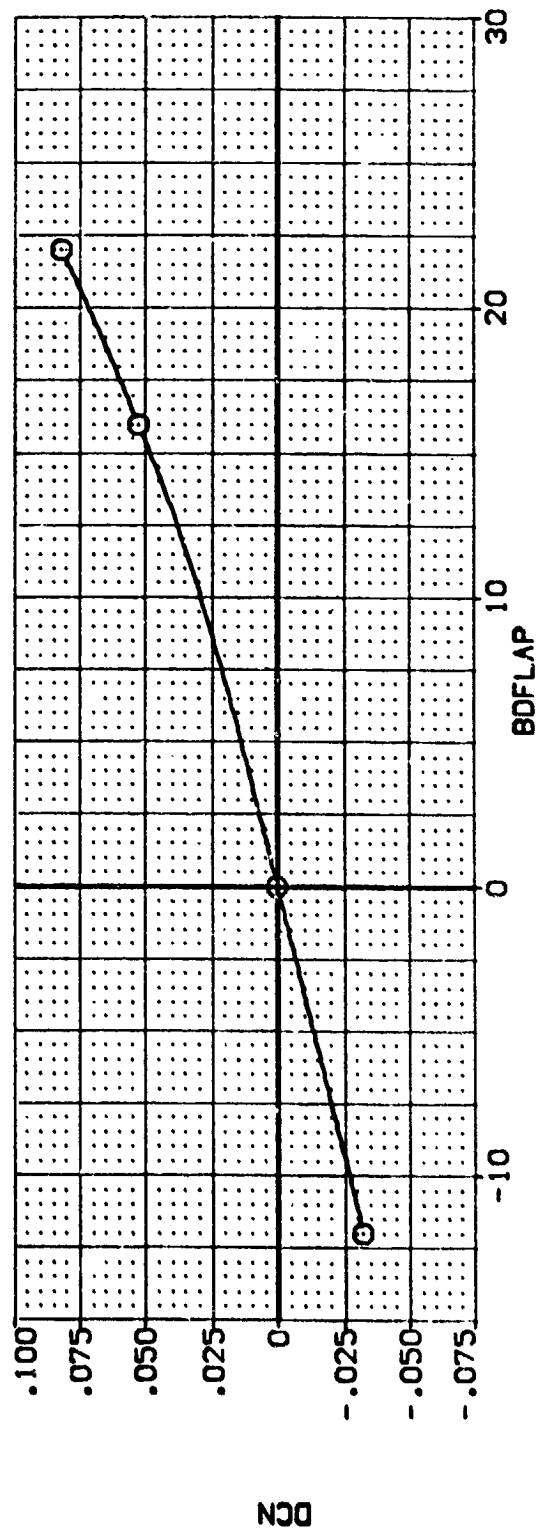
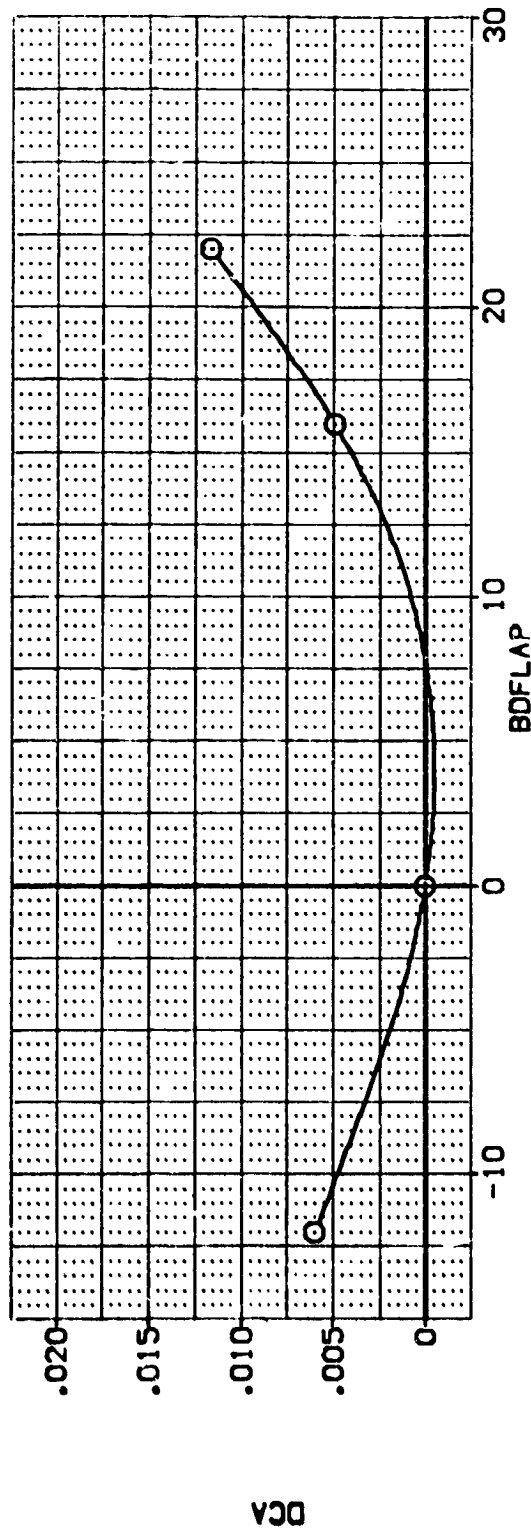


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

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[illegible]

**PAGE 584**

(JDZ117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

ALPHA 10.000  
MACH 10.000  
ATLUM SPDRK  
PARAMETRIC VALUES  
.200 DELVON  
.000 RUDDER  
25.000 BETA  
DATA SOURCE  
BOFLAP -12.000  
16.000  
DATASET  
JDZ117  
JDZ136  
BOFLAP  
22.000  
22.000  
DATASET  
JDZ135  
JDZ137  
REFERENCE INFORMATION  
50 FT.  
4.4118  
19.2288  
37.5359  
43.5974  
0.0000  
15.1875  
SCALE  
0.0405

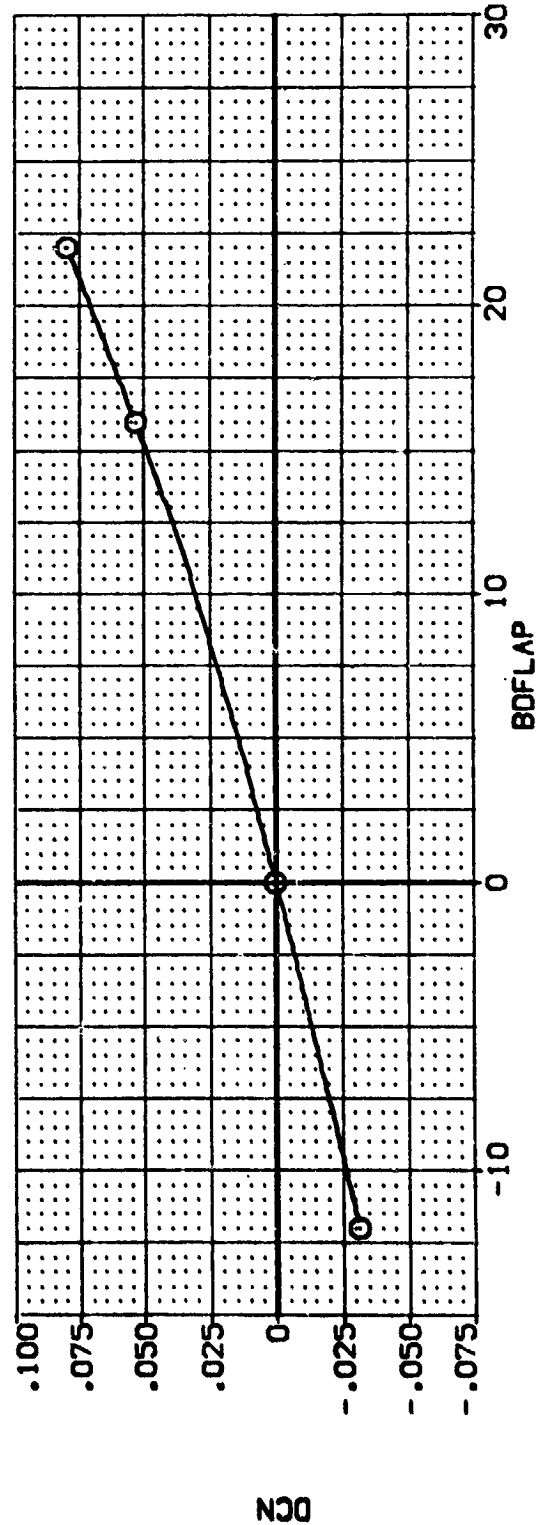
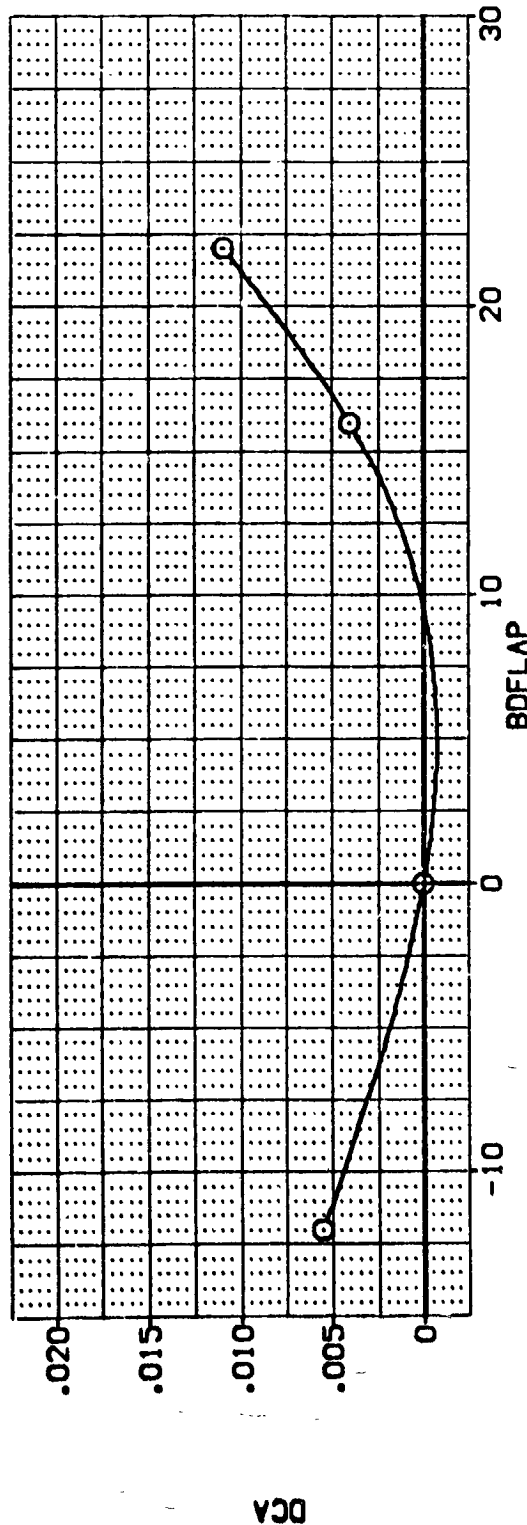
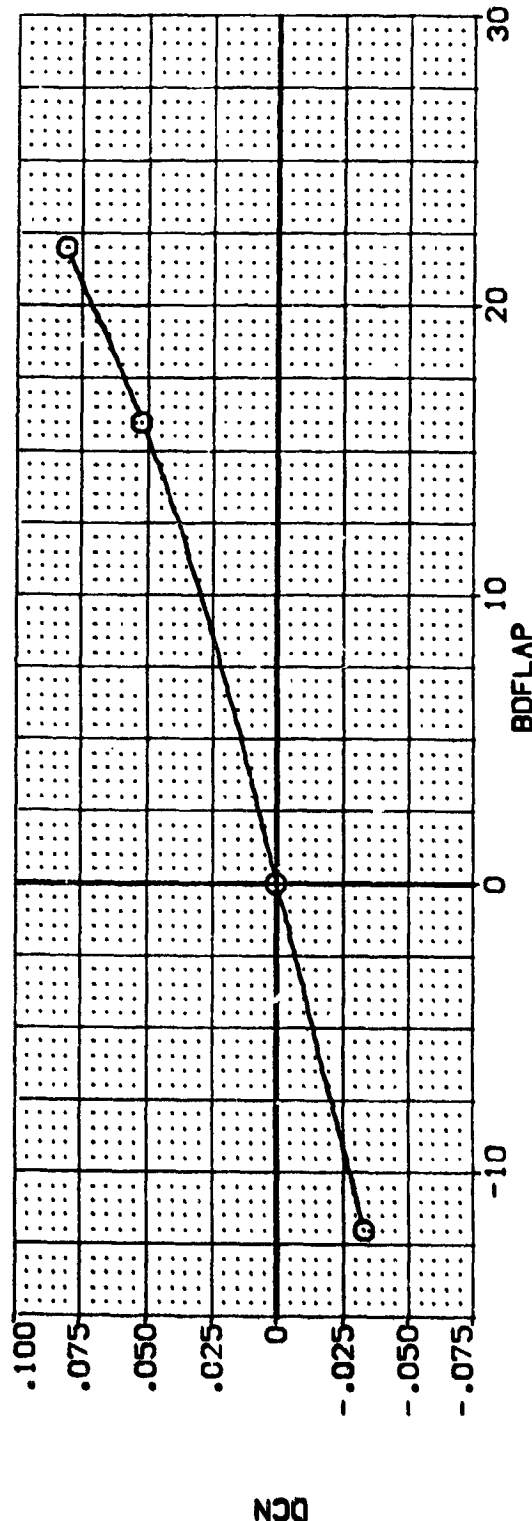
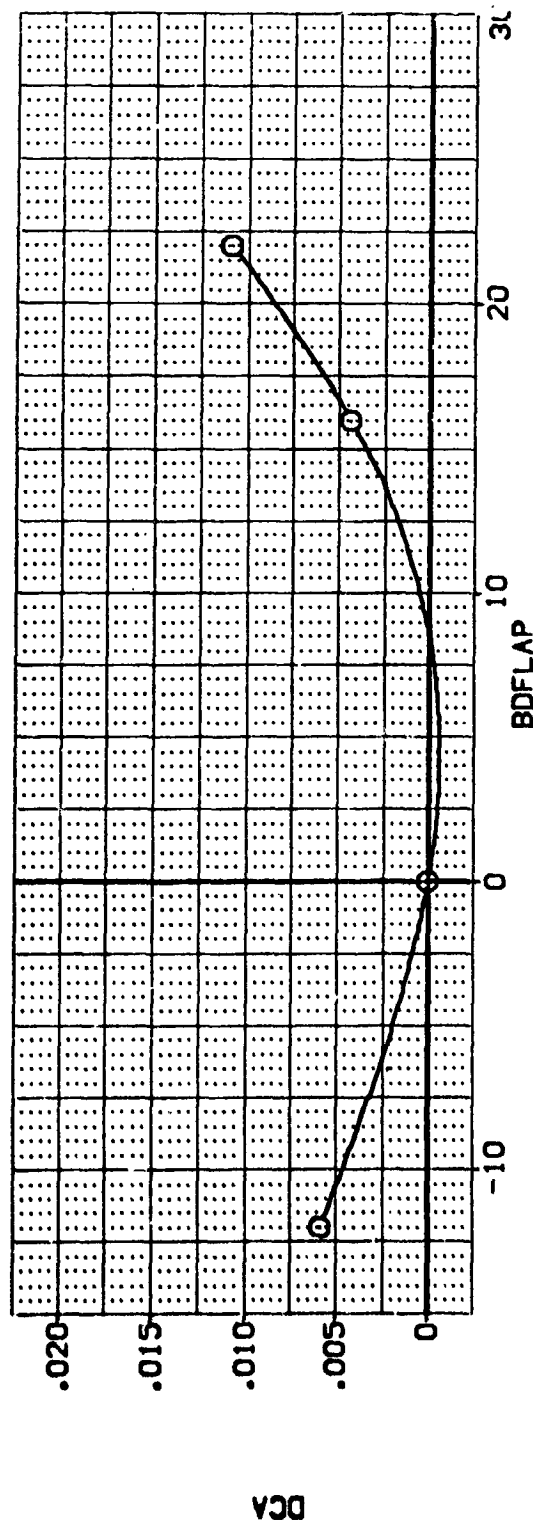


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

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PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	12.000	BOFLAP	BOFLAP	SREF	4.119
MACI	.200	DELVEN	.000	DELVEN	19.2299
ALIRON	.000	RUDDER	.000	RUDDER	37.5389
SPOBRK	25.000	BETA	.000	YMRP	43.5974
				ZMRP	15.1875
				SCALE	.0405



**PAGE 586**

0A628 B26C9 M7F8 W116E28V8R5X9

(JDZ117)

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
ALPHA	14.000	MACH	.000	DATASET	BOFLAP	REF	50.FT.	
0		AILRON	.000	JDZ117	-12.000	LREF	INCHES	
		SPOBRK	25.000	JDZ136	16.000	BREF	INCHES	
		BETA				XREF	INCHES	
						YREF	INCHES	
						ZREF	INCHES	
						SCALE	SCALE	

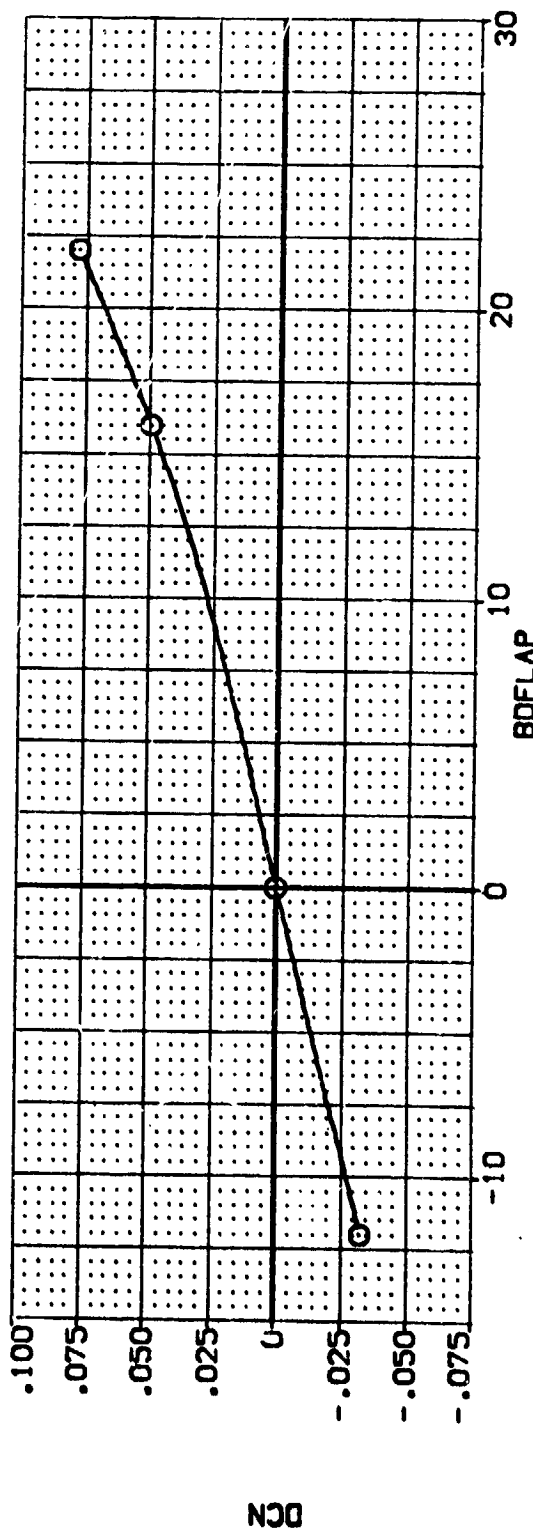
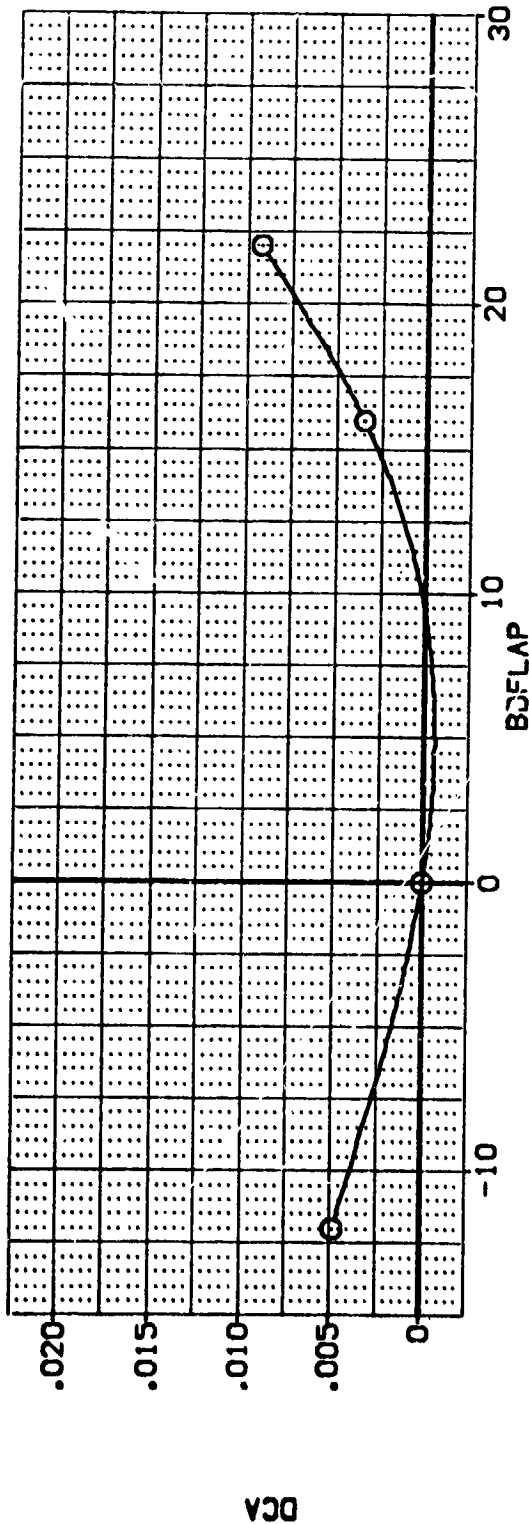
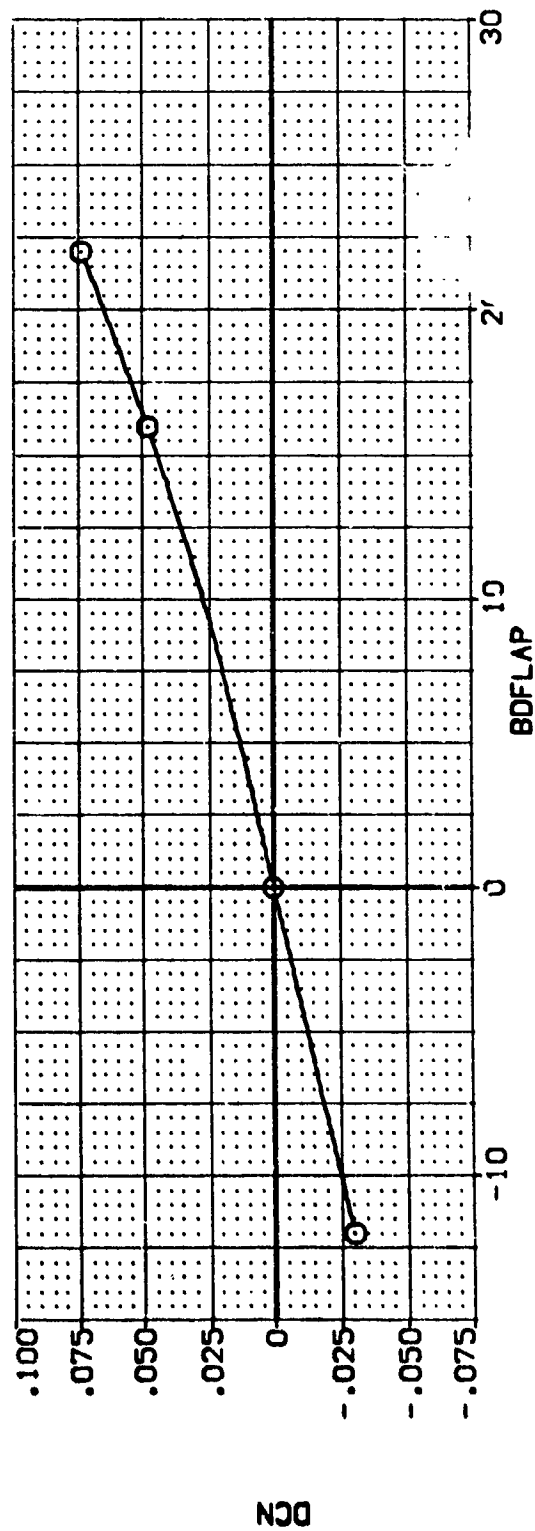
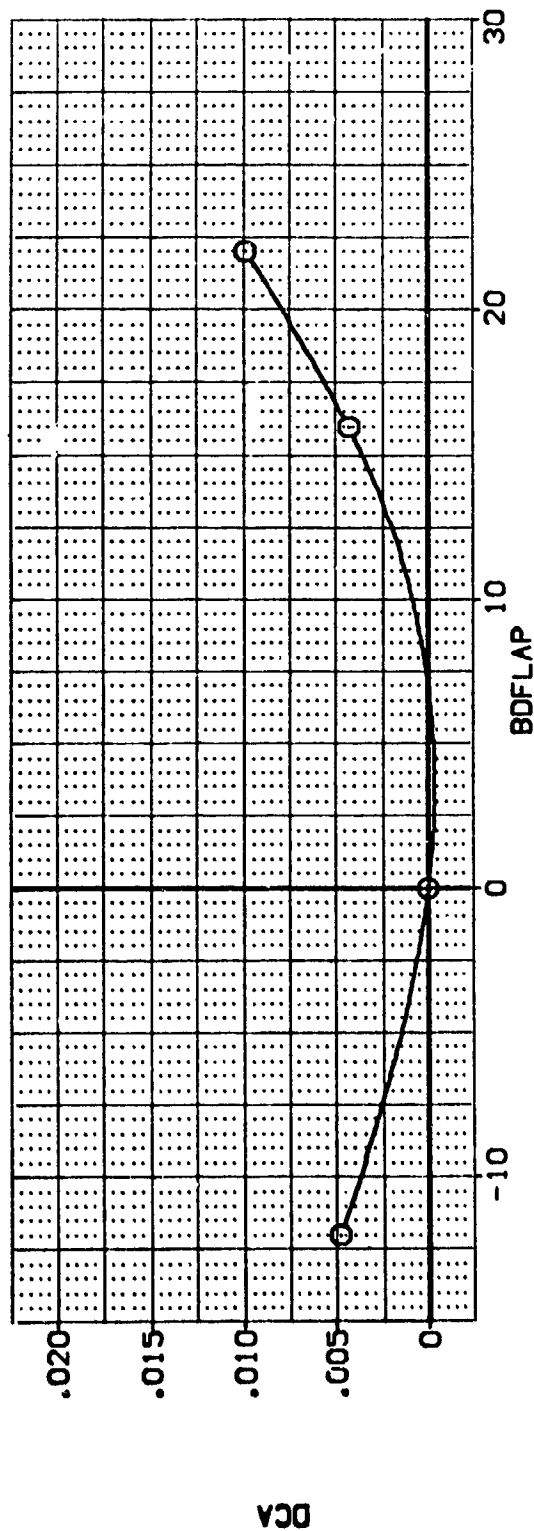


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0/

	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
ALPHA O	MACH .200	BOFLAP .000	SREF 4.4119 SQ.FT.
	AIRLORN .000	DATASET J02135	LREF 19.2289 INCHES
	RUDDER .000	J02137	BREF 37.9359 INCHES
	BETA 25.000	.000	XREF 43.5574 INCHES
			YREF .0000 INCHES
			ZREF 15.1875 INCHES
			SCALE .0405 INCHES



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(JDZ117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL ALPHA 18.000  
 PARAMETRIC VALUES  
 MACH .200 DELVON  
 AIRLON .000 RUDDER  
 SPEEDK 25.000 BETA

DATA SOURCE  
 BOFLAP  
 DATASET  
 JDZ117  
 JDZ136

DATA SOURCE  
 BOFLAP  
 DATASET  
 JDZ135  
 JDZ137

REFERENCE INFORMATION  
 SQ.FT. 4.4119  
 INCHES 19.2259  
 INCHES 37.9359  
 INCHES 43.5674  
 INCHES .0000  
 INCHES 15.1875  
 SCALE .0405

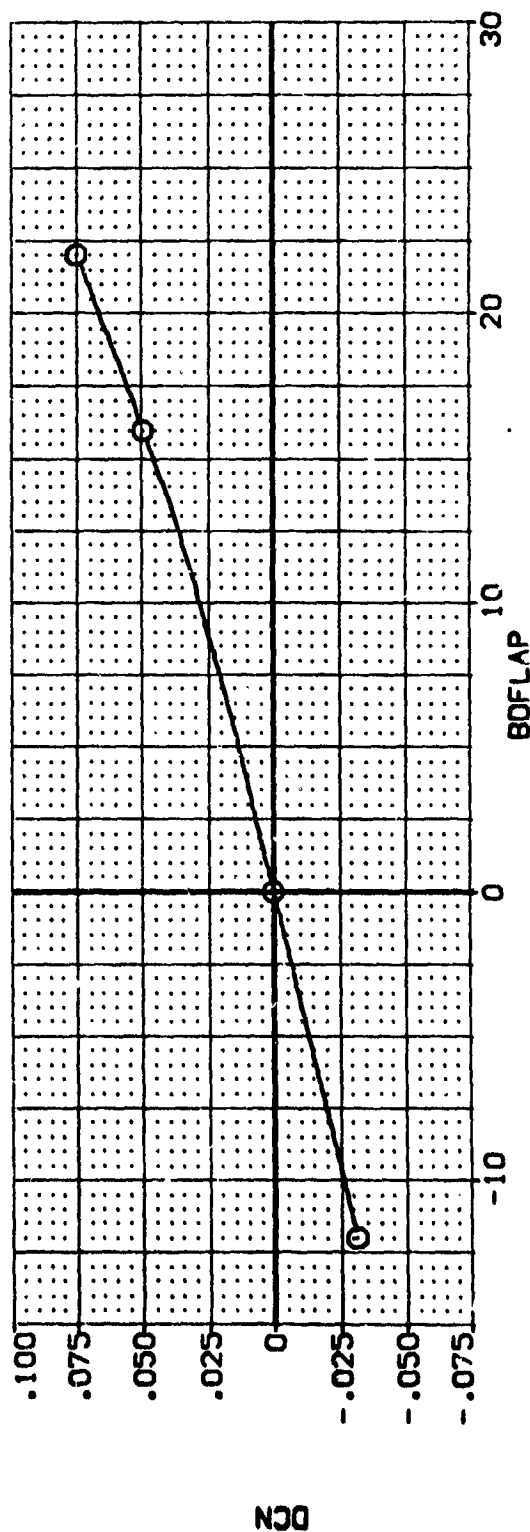
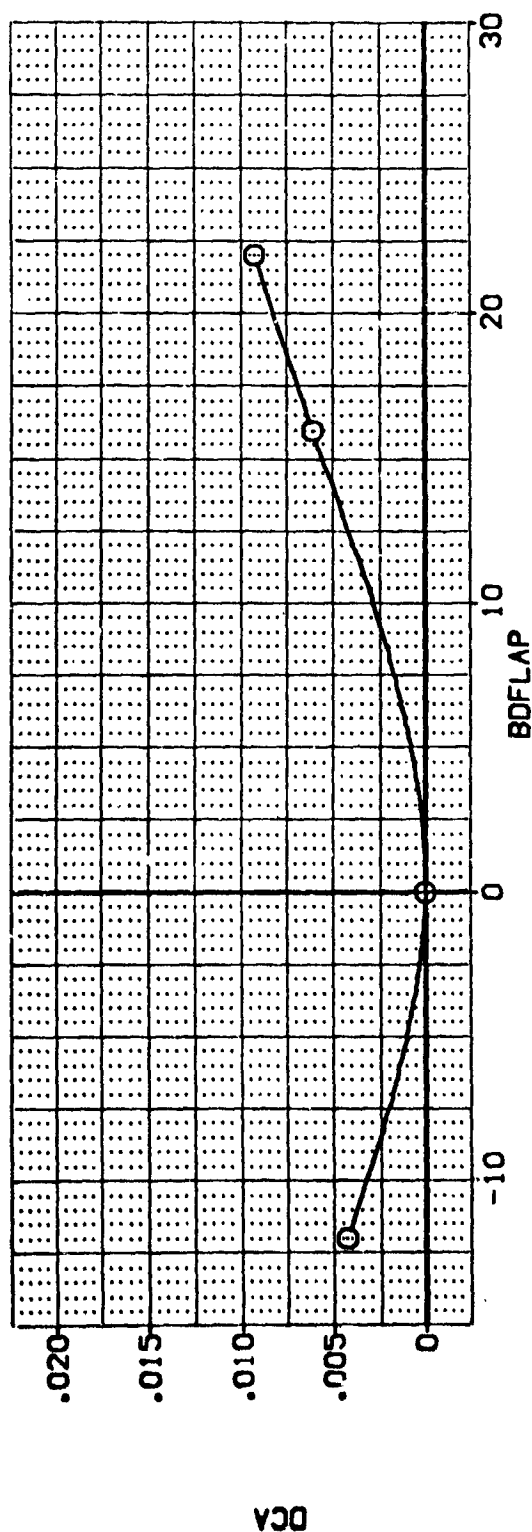


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (J02117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
0	20.000	0.000	.200	DEL VON	.000	DATASET	BDFLAP	SREF	4.411°	50. FT.	
		AILRON	.000	RUDDER	.000	J02117	.000	LREF	19.2259	IN-ES	
		SPDRK	25.000	BETA	.000	J02136	22.000	BREF	37.9359	IN-ES	
								YMRP	43.5974	IN-ES	
								ZMRP	15.1875	IN-ES	
								SCALE	.1405	SCALE	

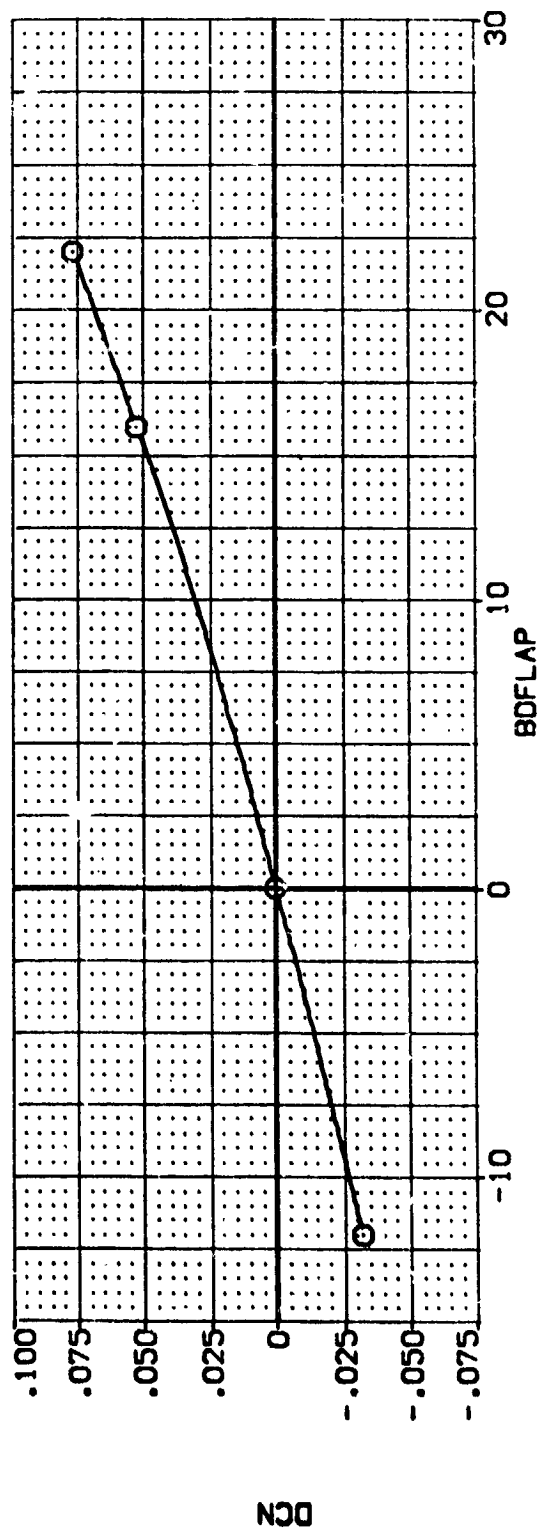
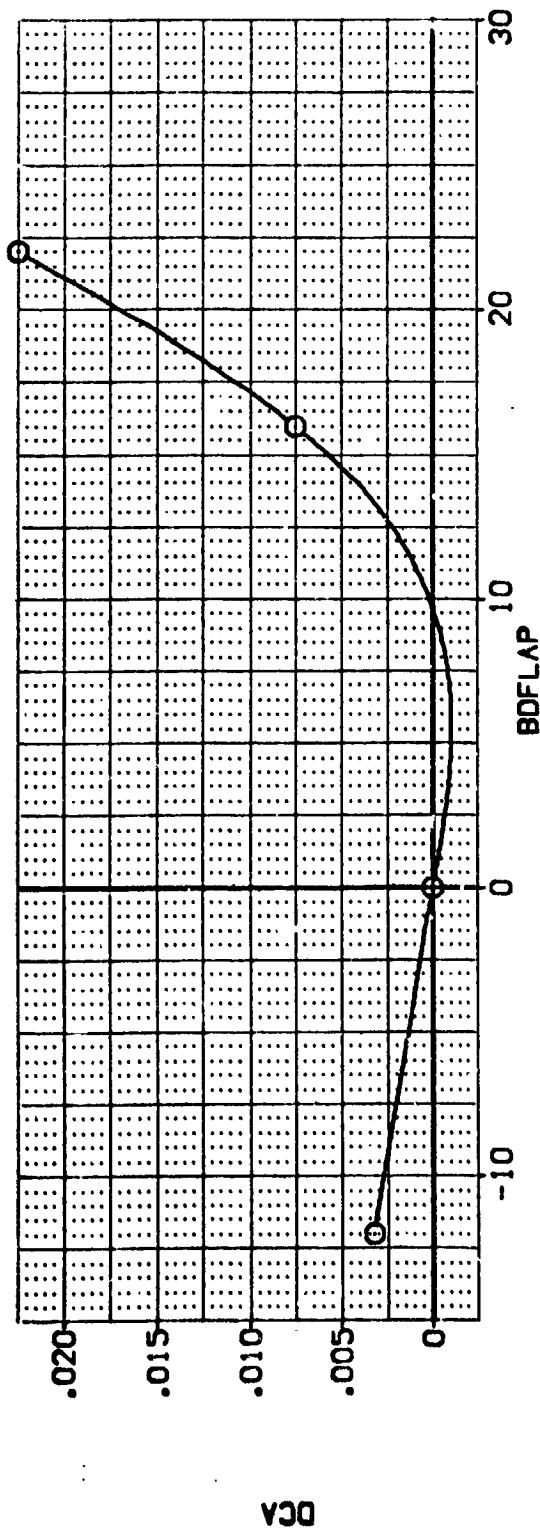


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (J02117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA	BDFLAP	DATA SET	BDFLAP	SCALE	REFERENCE INFORMATION
O	22.000	0.000	DELTA	0.000	J02117	-12.000	J02135	0.000	50.000	INCHES
		0.000	RUDER	0.000	J02136	16.000	J02137	22.000	19.239	INCHES
		25.000	BETA						37.335	INCHES
									43.597	INCHES
									15.187	INCHES
									0.040	SCALE

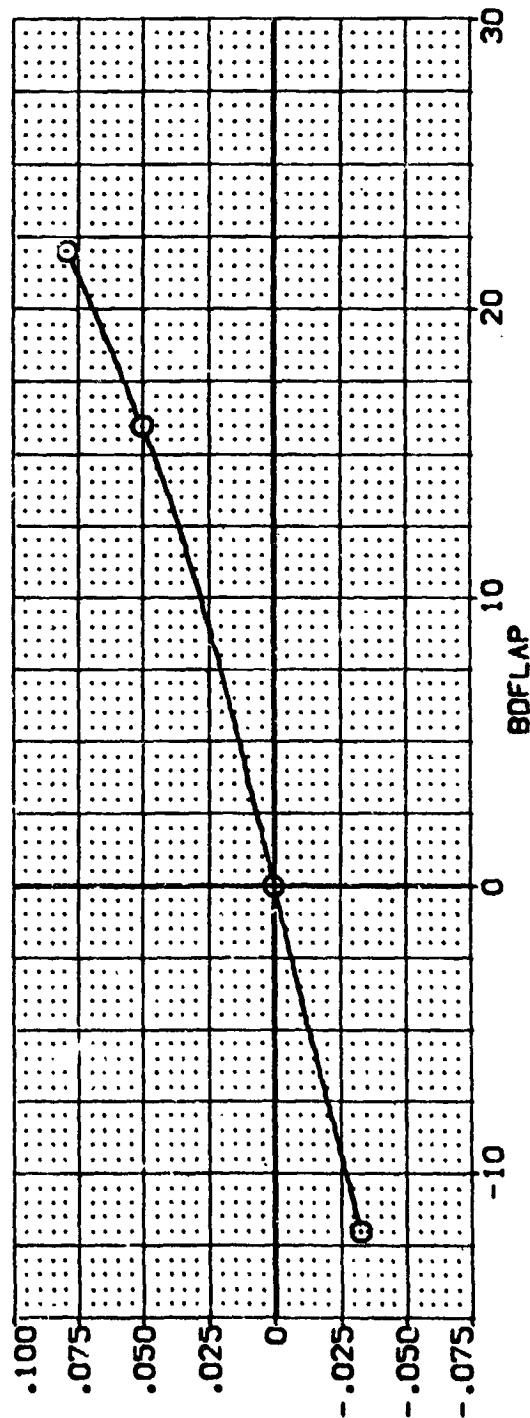
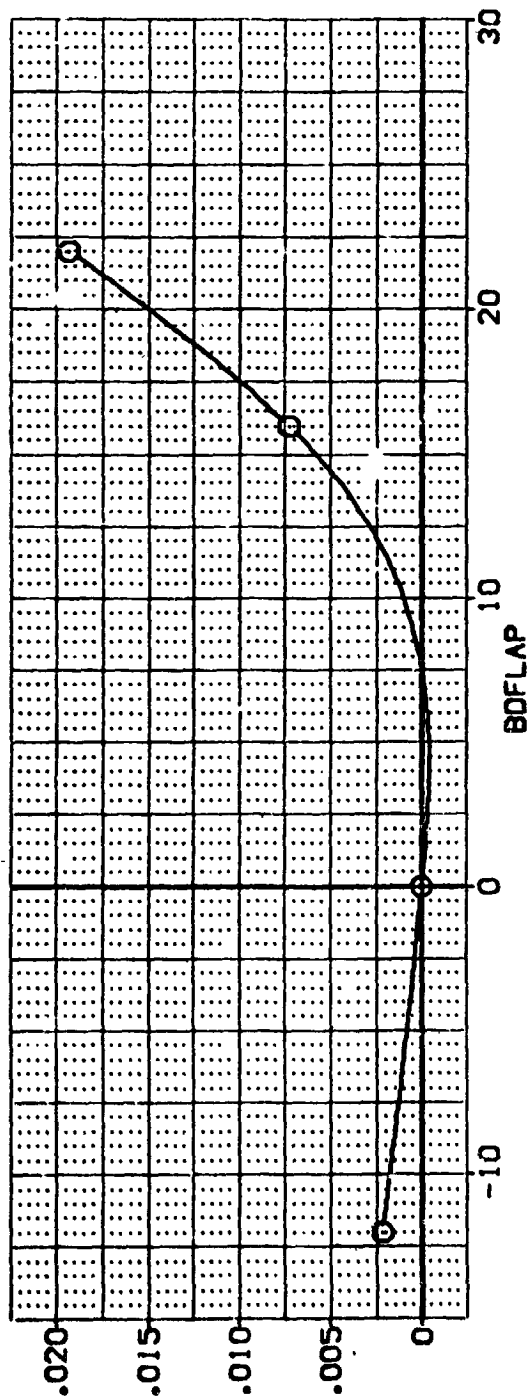
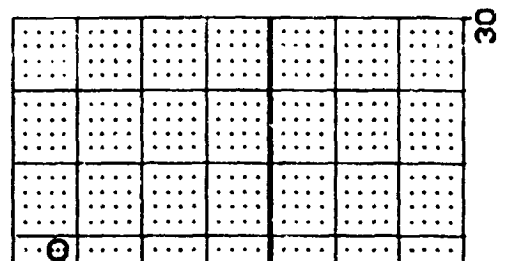
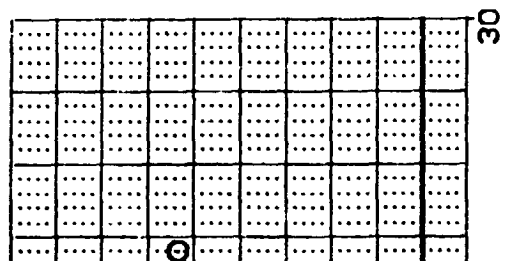


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

REFERENCE INFORMATION



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(J02117)

0A628 B26C9 M7F8 W116E28V8R5X9

REFERENCE INFORMATION  
 90.FY INO-ES  
 4.4118 INO-ES  
 19.2259 INO-ES  
 37.9559 INO-ES  
 43.5974 INO-ES  
 .0000 INO-ES  
 15.1875 INO-ES  
 .0405 SCALE

DATA SOURCE  
 BDFLAP -12.000  
 J02117  
 J02136

PARAMETRIC VALUES  
 .000 DELVON  
 .000 RUDDER  
 25.000 BETA

WACH  
 AIRBOR  
 SPDRK

ALPHA  
 25.000

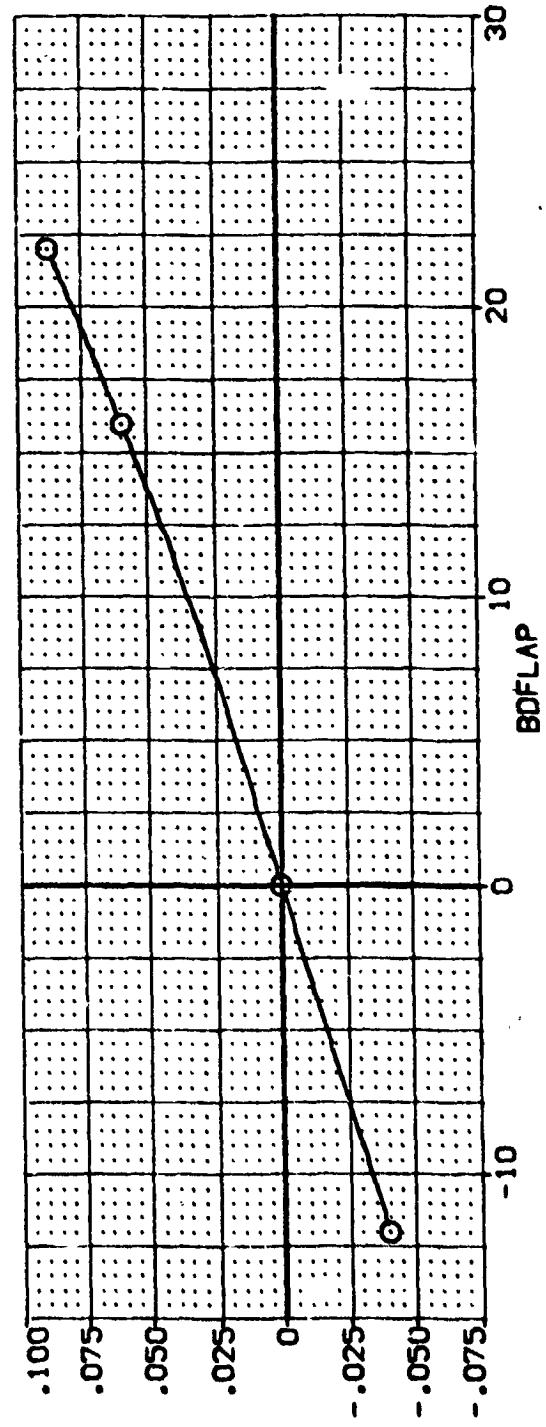
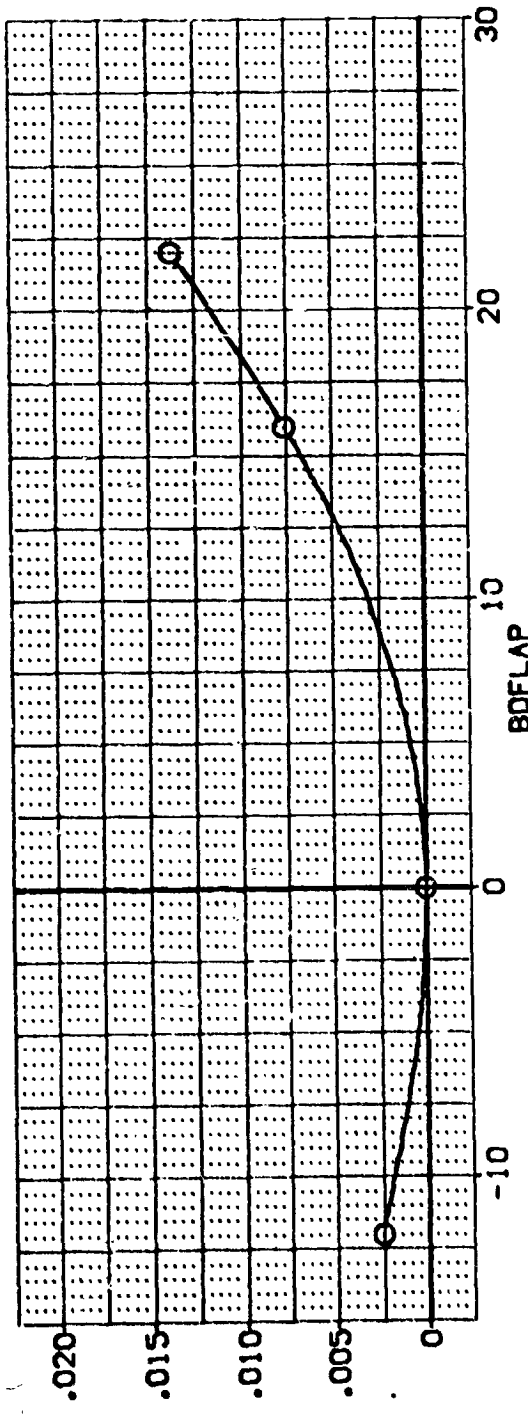


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE



(JDZ117)

0A628 B26C9 M7F8 W116E28V8R5X9

ALPHA  
20.000

MACH  
A1LURON  
SPDRBK

PARAMETRIC VALUES  
.200 DELVEN  
.000 RUDDER  
25.000 BETA

DATA SOURCE  
BDFLAP  
-12.000  
16.000

DATASET  
JDZ117  
JDZ136

BDFLAP  
BREF  
22.000

REFERENCE INFORMATION  
SQ.FT.  
4.4119  
19.2299  
37.9259  
43.5974  
INCHES  
15.0000  
15.1675  
SCALE  
.0405

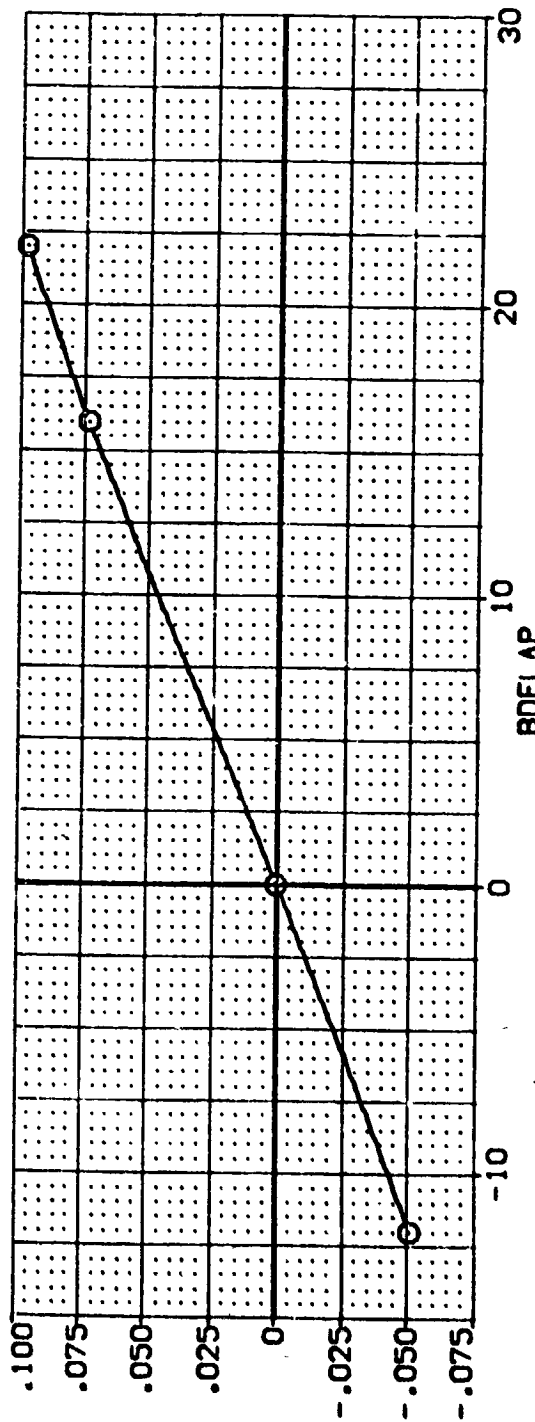
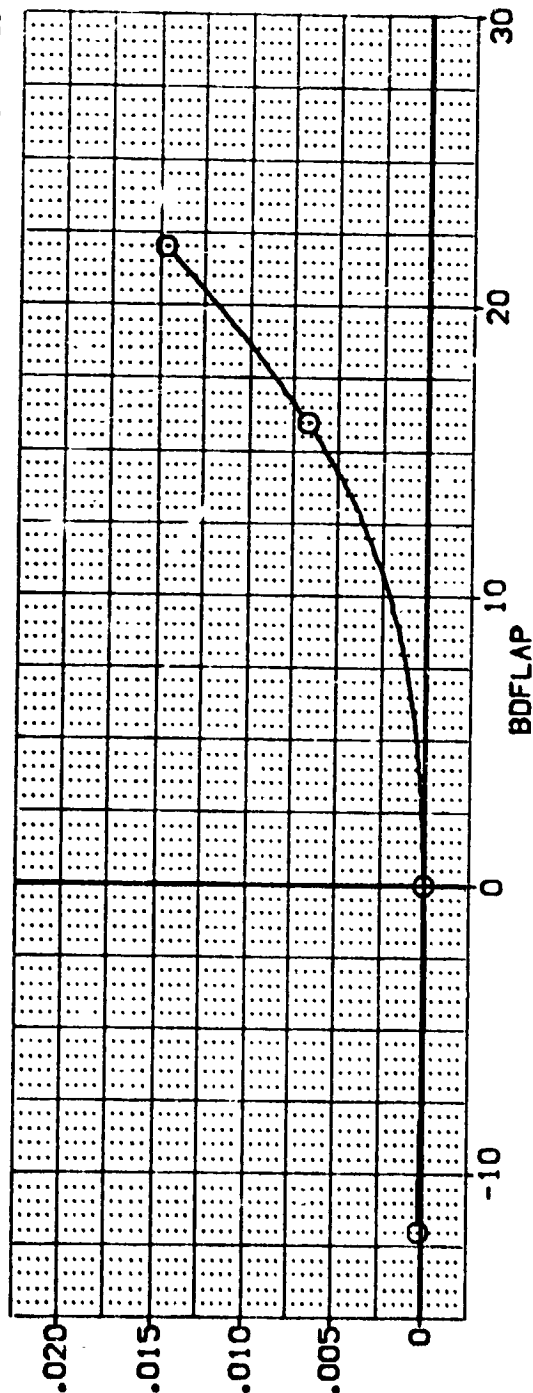


FIG 49 BODY FLAP EFFECTIVENESS, 25 DEG. FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	AILERON	REFERENCE INFORMATION
[RZ128]	04528 026C3 M7F8 V11E26V8C3S	.000	.000	40.000	.000	SREF 4.4119 SQ.FT.
[RZ140]	04528 026C3 M7F8 V11E26V8C3S	5.000	.000	40.000	.000	LREF 19.2289 INCHES
[RZ141]	04528 026C3 M7F8 V11E26V8C3S	10.000	.000	40.000	.000	BREF 37.5059 INCHES
[RZ142]	04528 026C3 M7F8 V11E26V8C3S	15.000	.000	40.000	.000	XREF 43.5974 INCHES
[RZ143]	04528 026C3 M7F8 V11E26V8C3S	20.000	.000	40.000	.000	YREF 15.0000 INCHES
						ZREF .0405 INCHES
						SCALE

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

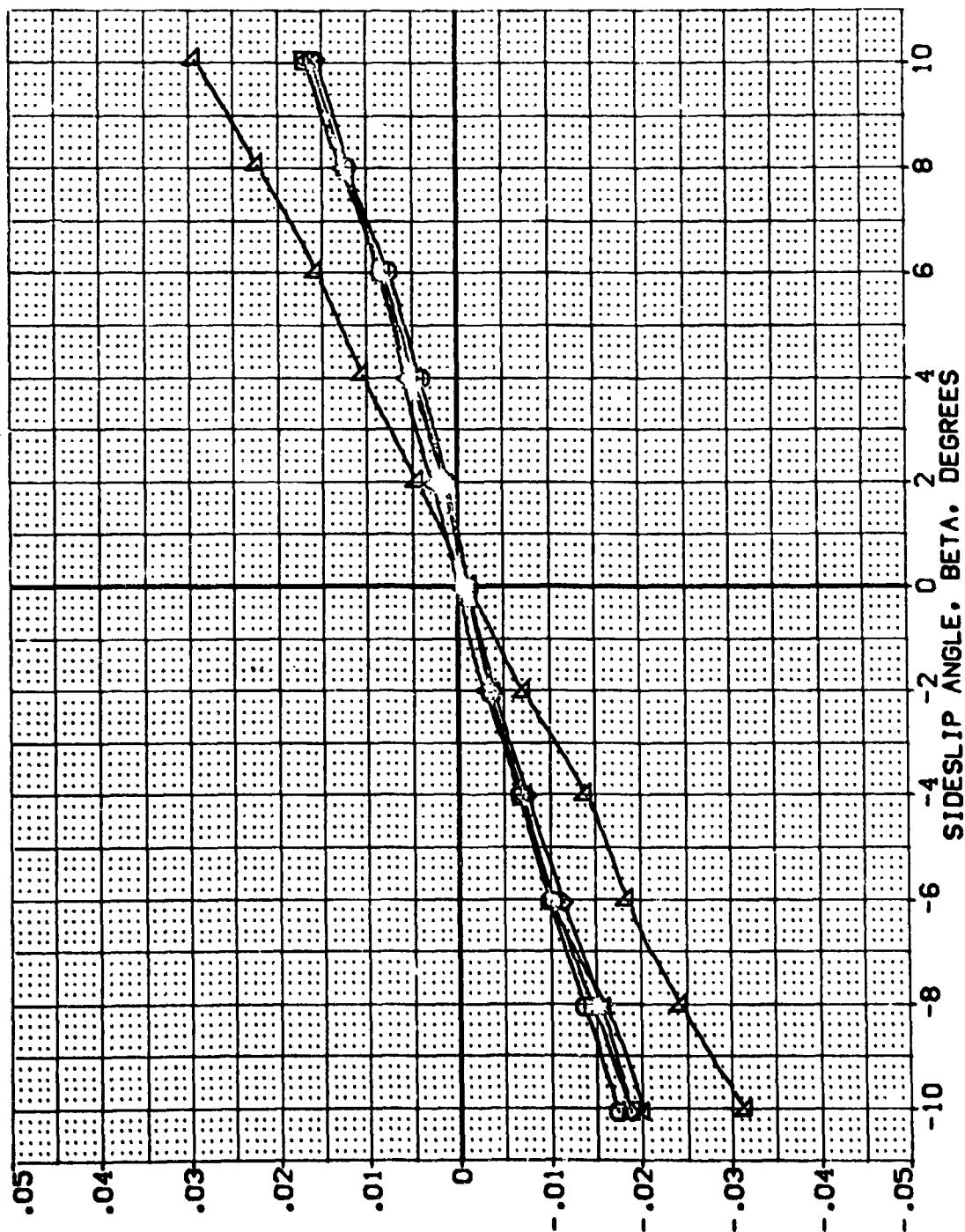


FIG 50 LATERAL DIRECTIONAL STABILITY, 40 DEG. FLARE, RUDDER = 0

MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	AILRON	REFERENCE INFORMATION
[RZ128]	0A628 828C3 M7F8 V116E28V8533	.000	.000	40.000	.000	SREF 4.4119 50.FT. INCHES
[RZ140]	0A628 828C3 M7F8 V116E28V8533	5.000	.000	40.000	.000	LREF 19.2299 INCHES
[RZ141]	0A628 828C3 M7F8 V116E28V8533	10.000	.000	40.000	.000	BREF 37.9359 INCHES
[RZ142]	0A628 828C3 M7F8 V116E28V8533	15.000	.000	40.000	.000	XREF 43.5974 INCHES
[RZ143]	0A628 828C3 M7F8 V116E28V8533	20.000	.000	40.000	.000	YREF .0000 INCHES
						ZREF 15.1873 INCHES
						SCALE .0405

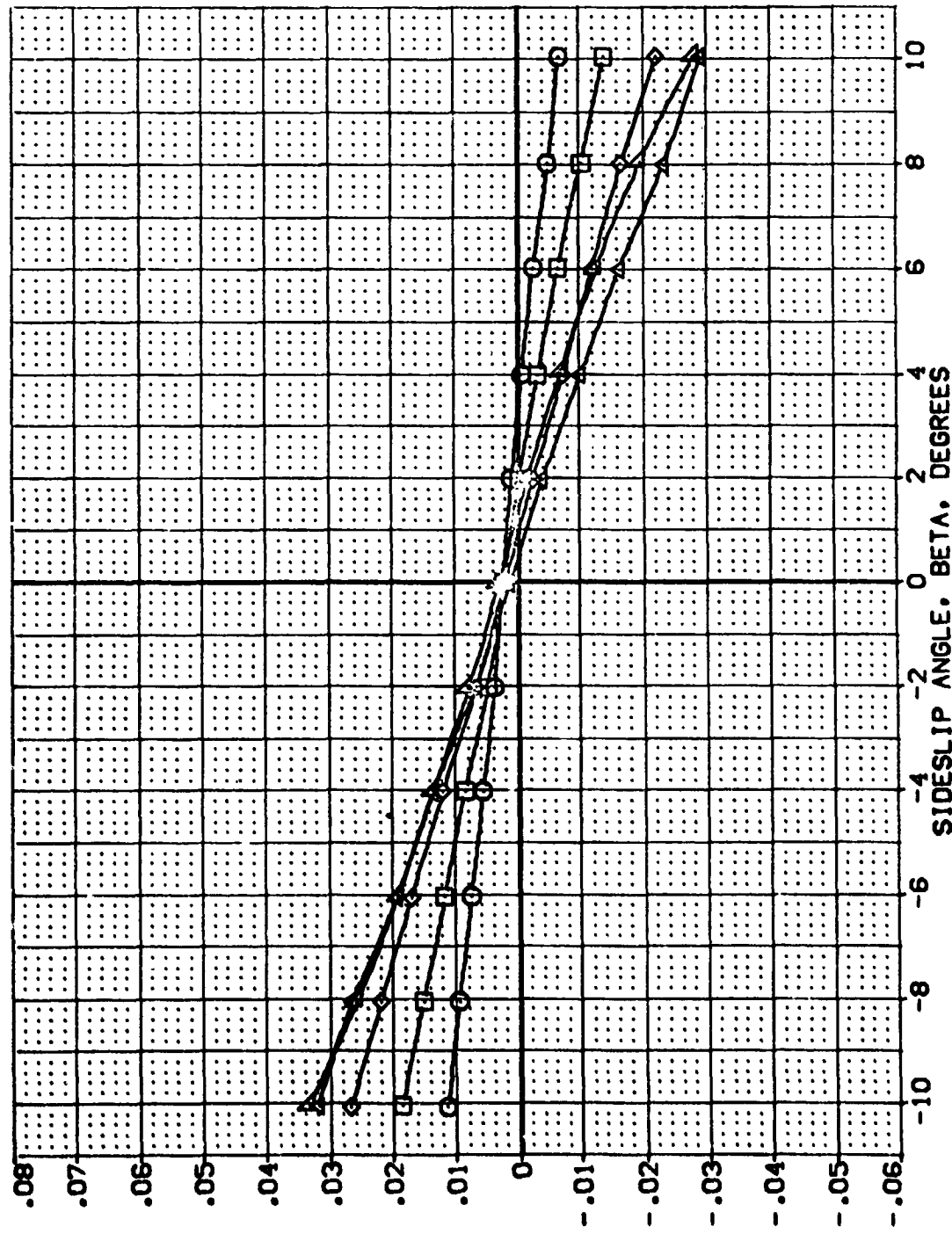


FIG 50 LATERAL DIRECTIONAL STABILITY, 40 DEG. FLARE, RUDDER = 0  
 (A)MACH = .20

DATA SET	SIDEL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	AILRON	REFERENCE INFORMATION
[RZ129]	0	04528 B25C3 M7F8 V116E28V85C3	.000	.000	40.000	.000	SREF 4.4118 SO.FT.
[RZ140]	0	04528 B25C3 M7F8 V116E28V85C3	5.000	.000	40.000	.000	LREF 19.2258 IN-ES
[RZ141]	0	04528 B25C3 M7F8 V116E28V85C3	10.000	.000	40.000	.000	BREF 37.5359 IN-ES
[RZ142]	0	04528 B25C3 M7F8 V116E28V85C3	15.000	.000	40.000	.000	XREF 43.5974 IN-ES
[RZ143]	0	04528 B25C3 M7F8 V116E28V85C3	20.000	.000	40.000	.000	YREF .0000 IN-ES
							ZREF 15.1875 IN-ES
							SCALE .0405 SCALE

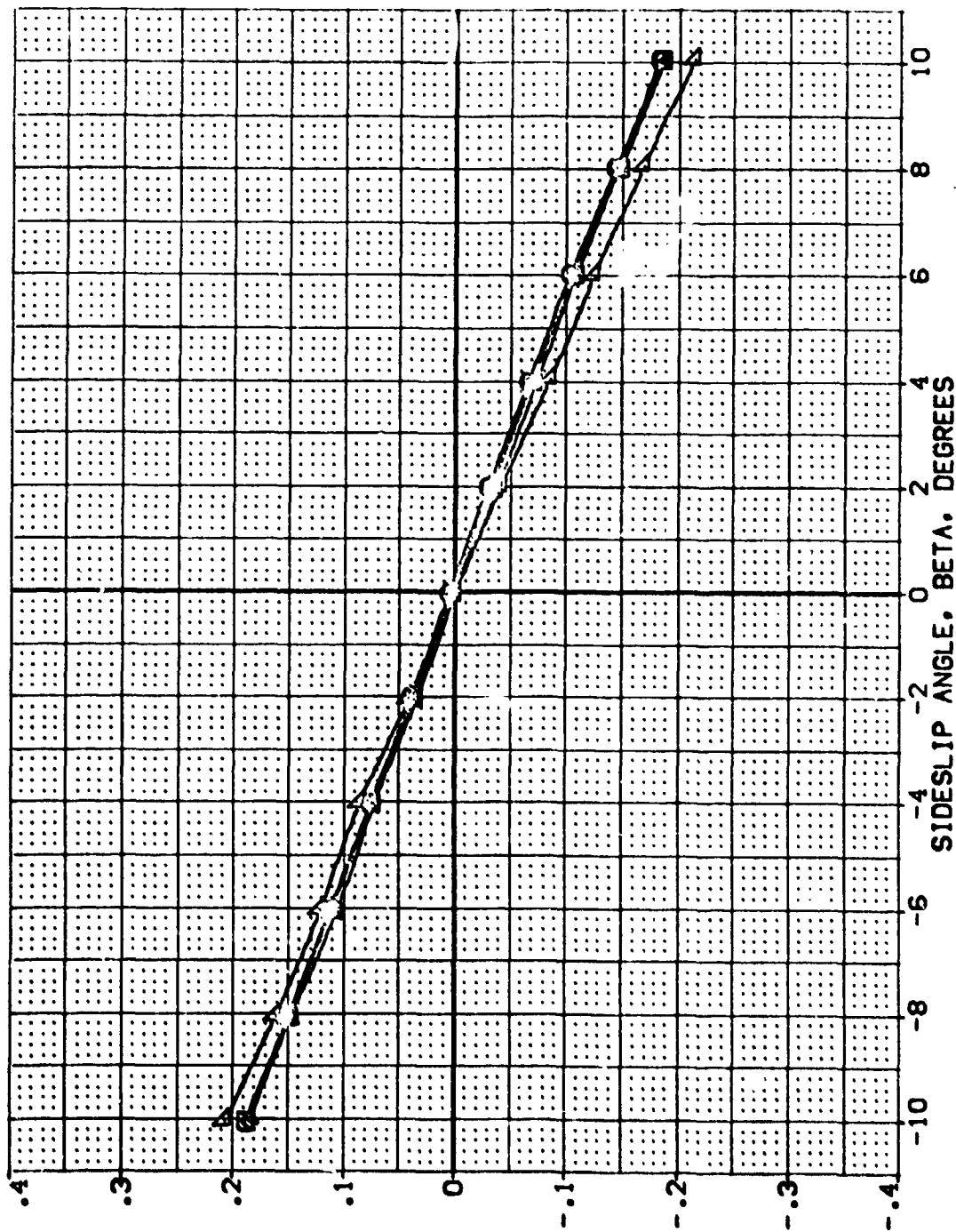


FIG 50 LATERAL DIRECTIONAL STABILITY, 40 DEG. FLARE, RUDDER = 0

(A)MACH = .20

SYMBOL  
O

SPEED  
40.000

WIND  
ELEVATION  
RUDDER

PARAMETRIC VALUES  
.200 BOFLAP  
.000 AILRON  
.000

-12.000  
.000

0A628 B26C9 M7F8 W116E28V8R5X9

(CDZ139)

REFERENCE INFORMATION  
GREF 4.4119 SO.FT.  
LREF 19.2289 INCHES  
BREF 37.9559 INCHES  
XMRP 43.5574 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405 SCALE

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

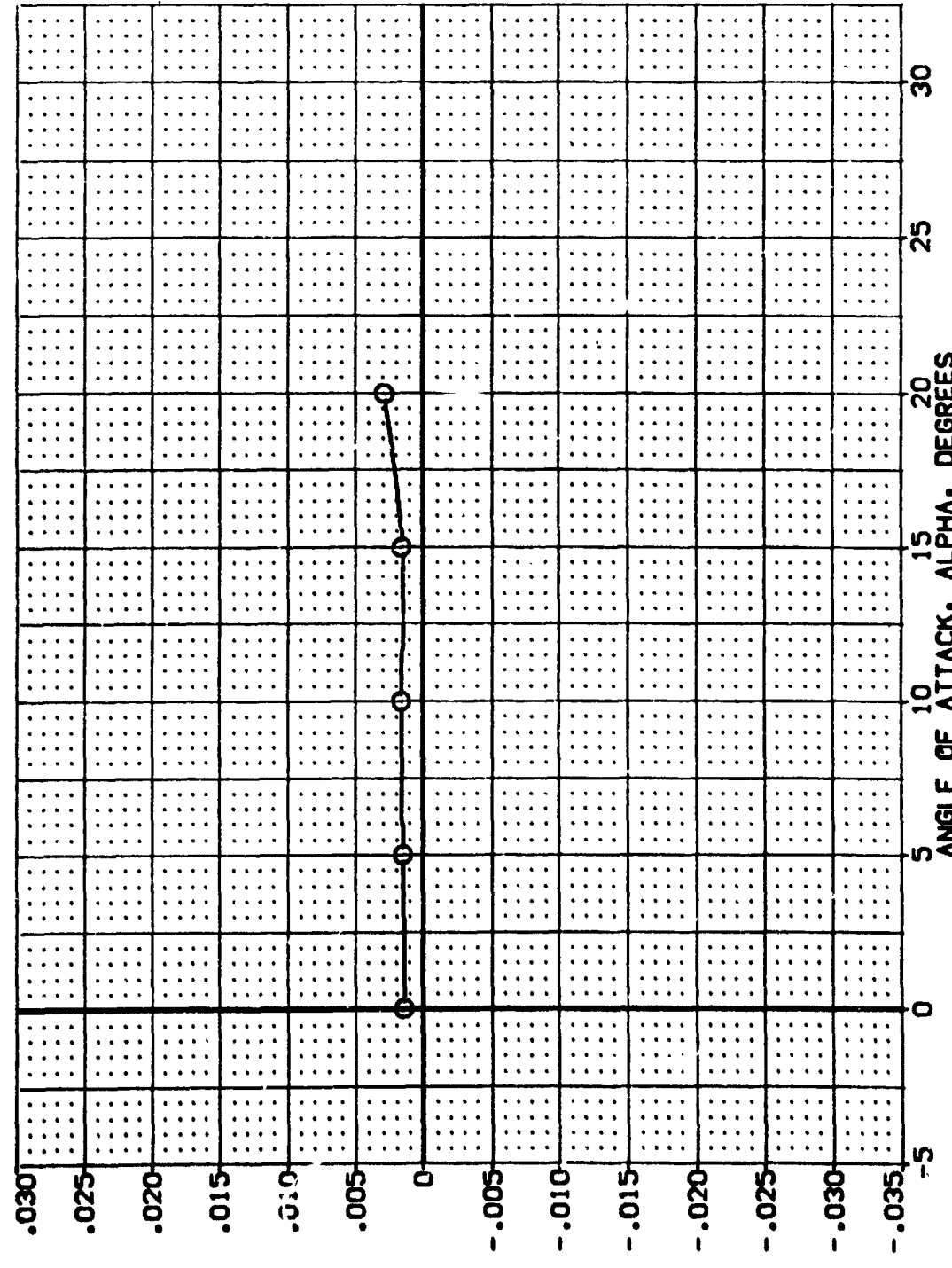


FIG 50 LATERAL DIRECTIONAL STABILITY, 40 DEG. FLARE, RUDDER = 0

(CDZ139)

0A628 B26C9 M7F8 W116E28V8R5X9

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2289 INCHES  
 BREF 37.9359 INCHES  
 XHRP 43.5974 INCHES  
 YHRP .0000 INCHES  
 ZHRP 15.1875 INCHES  
 SCALE .0405

PARAMETRIC VALUES  
 BOFLAP -12.000  
 AILRON .000  
 RUDDER .000

WACH  
 ELEVON  
 RUDDER

SPDRK  
 40.000

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

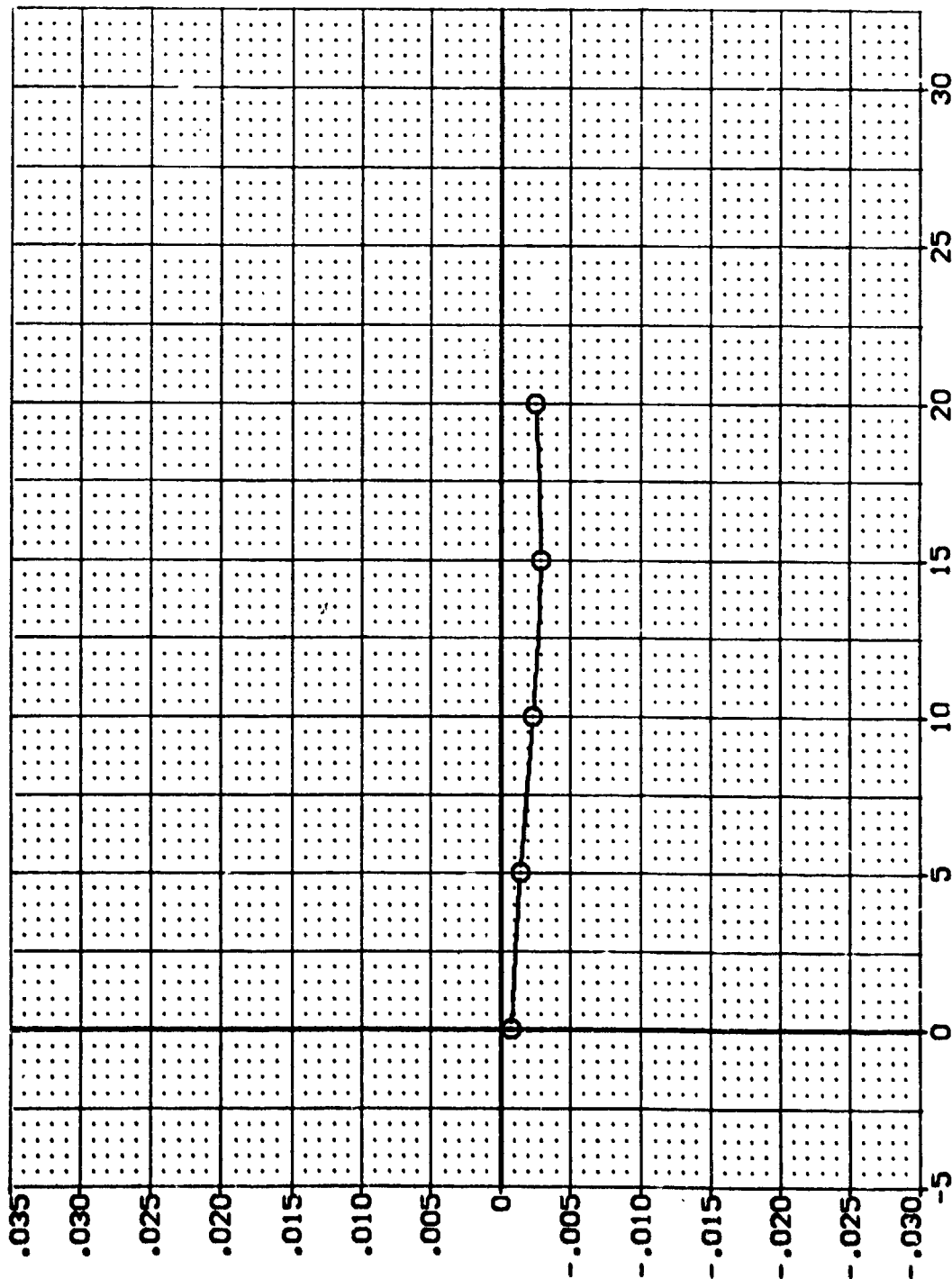


FIG 50 LATERAL DIRECTIONAL STABILITY, 40 DEG. FLARE, RUDDER = 0



SYMBOL  
O

0A628 B26C9 M7F8 W116E28V8R5X9 (CDZ139)

PARAMETRIC VALUES	
WING	SOFLAP
ELEVON	AIRLON
RUDDER	

REFERENCE INFORMATION

SREF	4.4119	50.FT.
LREF	19.2289	INCHES
BREF	37.9359	INCHES
VREF	43.5874	INCHES
YTRP	.0000	INCHES
ZTRP	15.1875	INCHES
SCALE	.0405	SCALE

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

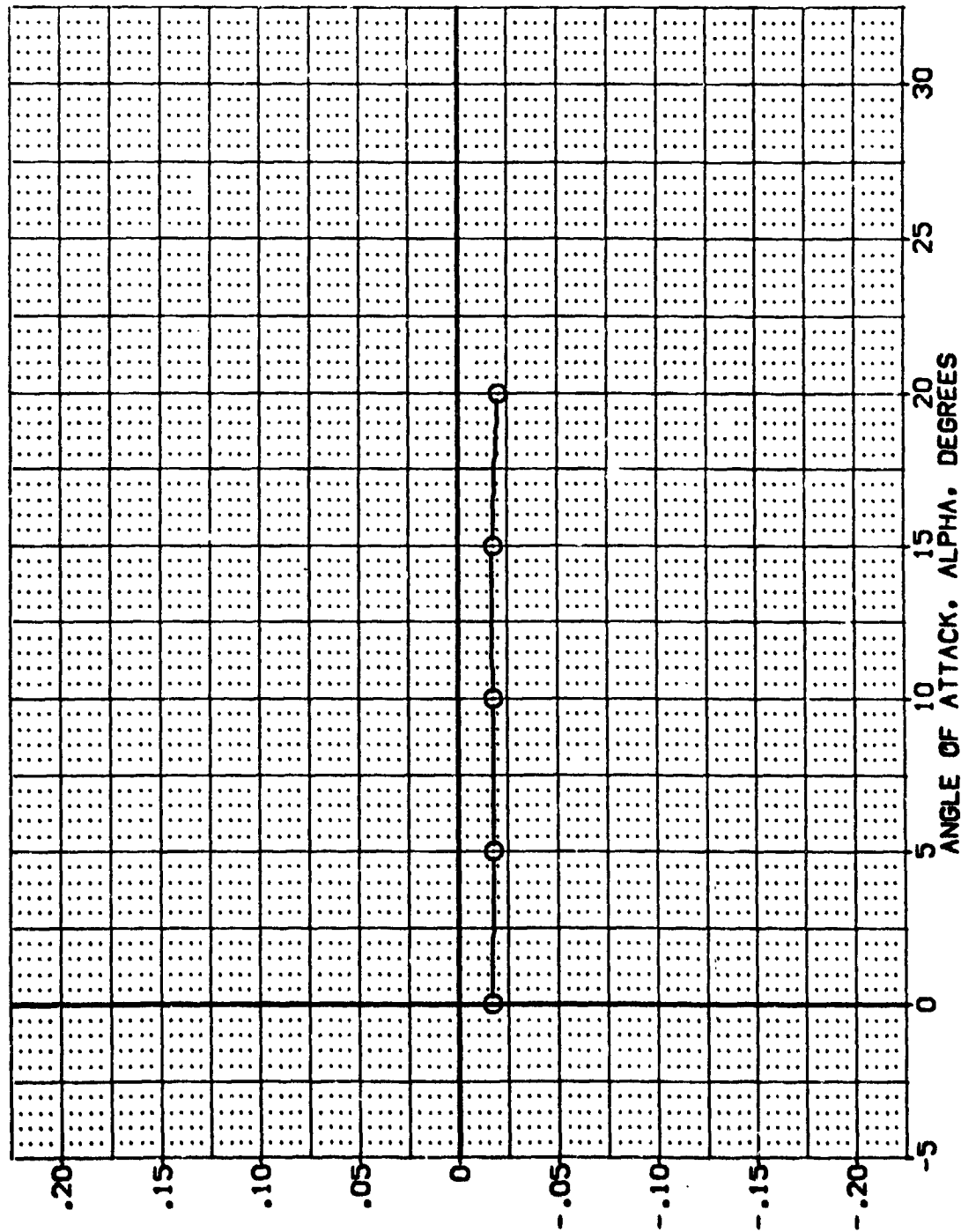


FIG 50 LATERAL DIRECTIONAL STABILITY, 40 DEG. FLARE, RUDDER = 0

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDBRK	AILRON	REFERENCE INFORMATION
{RZ143}	DA528 B26C3 M7F8 V11E2818P519	.000	.000	85.000	.000	BREF 4.4119 SQ.FT.
{RZ144}	DA528 B26C3 M7F8 V11E2818P519	5.000	.000	85.000	.000	LAEP 19.2259 INCHES
{RZ147}	DA528 B26C3 M7F8 V11E2818P519	10.000	.000	85.000	.000	BREF 37.9359 INCHES
{RZ148}	DA528 B26C3 M7F8 V11E2818P519	15.000	.000	85.000	.000	YARP 43.5974 INCHES
{RZ149}	DA528 B26C3 M7F8 V11E2818P519	20.000	.000	85.000	.000	YARP 15.1875 INCHES
						SCALE .0405

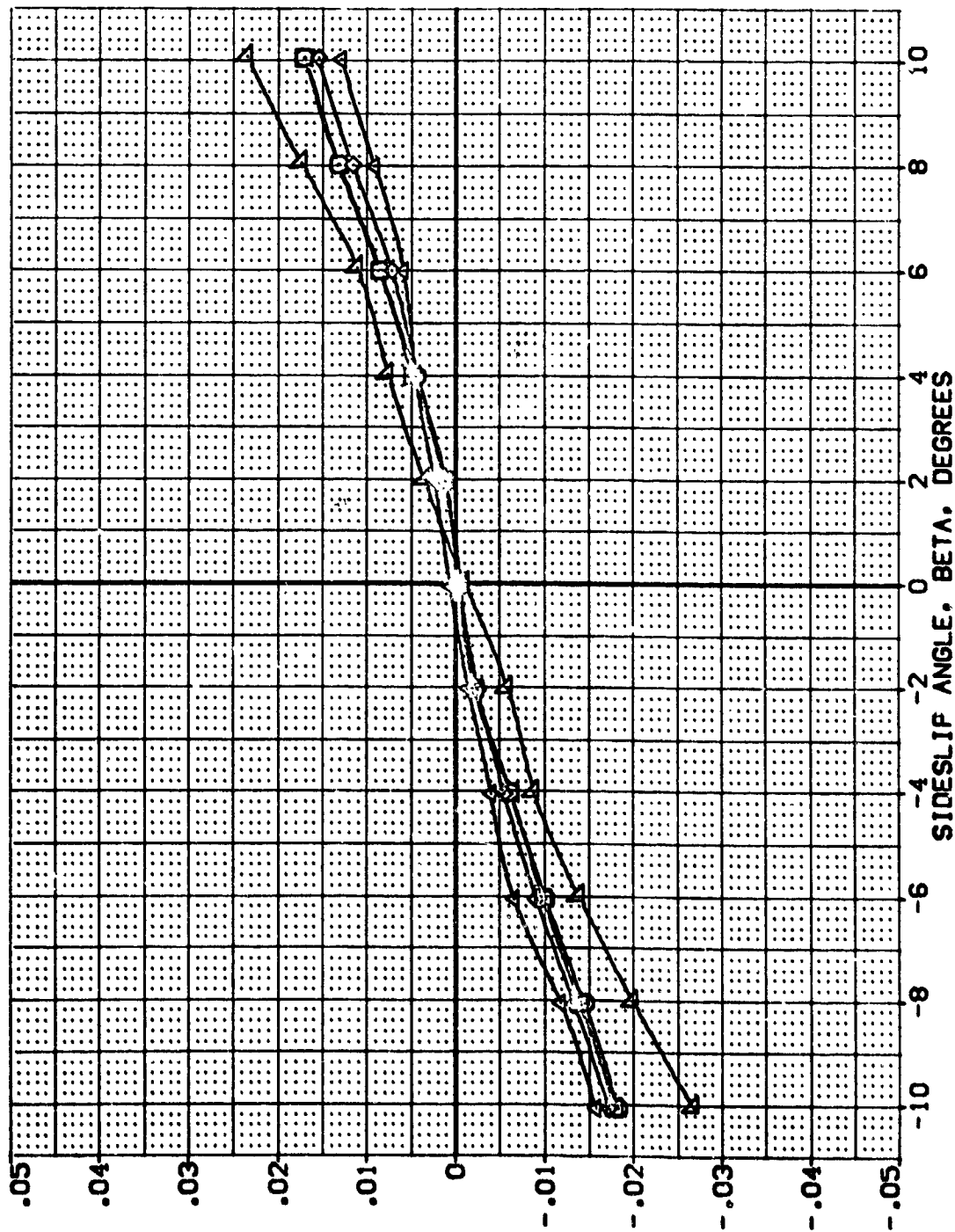


FIG 51 LATERAL DIRECTIONAL STABILITY, 85 DEG. FLARE, RUDDER = 0

(A)MACH = .20

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AIRLON	REFERENCE INFORMATION
{RZ145}	□	04628 826C3 H778 V116228V85C3	.003	.000	85.000	.000	SREF 4.4119 SQ.FT.
{RZ146}	○	04628 826C3 H778 V116228V85C3	5.000	.000	85.000	.000	LREF 19.2259 INCHES
{RZ147}	△	04628 826C3 H778 V116228V85C3	10.000	.000	85.000	.000	BREF 37.9359 INCHES
{RZ148}	×	04628 826C3 H778 V116228V85C3	15.000	.000	85.000	.000	YREF 43.5974 INCHES
{RZ149}	◇	04628 826C3 H778 V116228V85C3	20.000	.000	85.000	.000	ZREF 15.1875 INCHES
							SCALE .0405

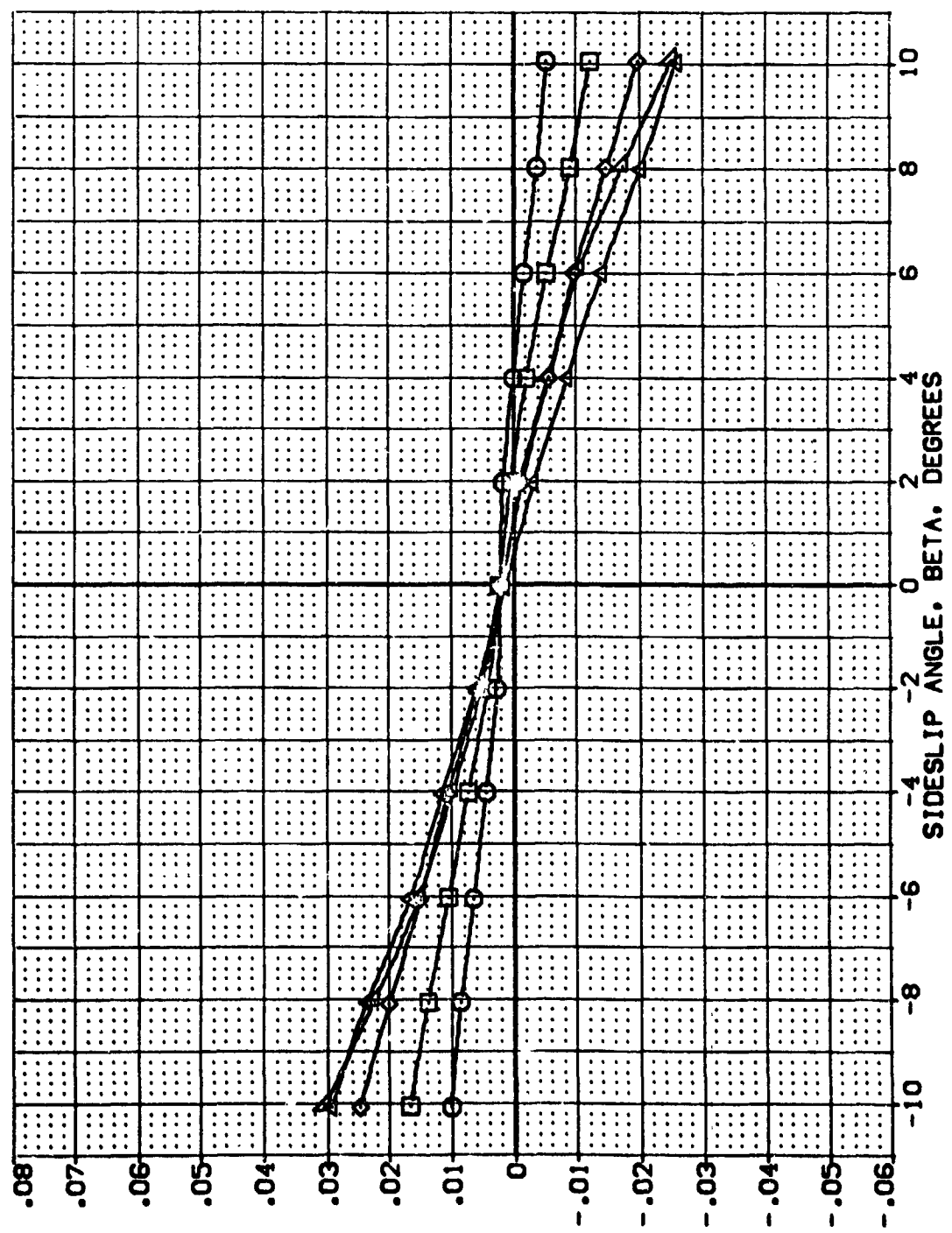


FIG 51 LATERAL DIRECTIONAL STABILITY, 85 DEG. FLARE, RUDDER = 0

(MACH = .20

DATA SET	WHEEL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	ATLRON	REFERENCE INFORMATION
[RZ145]	Q	04528 82623 M7F8 V116Z28/8P5X3	.000	.000	85.000	.000	SREF 4.4119 50.FT.
[RZ146]	Q	04528 82623 M7F8 V116Z28/8P5X3	5.000	.000	85.000	.000	LREF 19.2299 INO-ES
[RZ147]	X	04528 82623 M7F8 V116Z28/8P5X3	10.000	.000	85.000	.000	BREF 17.9359 INO-ES
[RZ148]	X	04528 82623 M7F8 V116Z28/8P5X3	15.000	.000	85.000	.000	XREF 43.5974 INO-ES
[RZ149]	X	04528 82623 M7F8 V116Z28/8P5X3	20.000	.000	85.000	.000	YREF .0000 INO-ES
							ZREF 15.1875 INO-ES
							SCALE .0405 SCALE

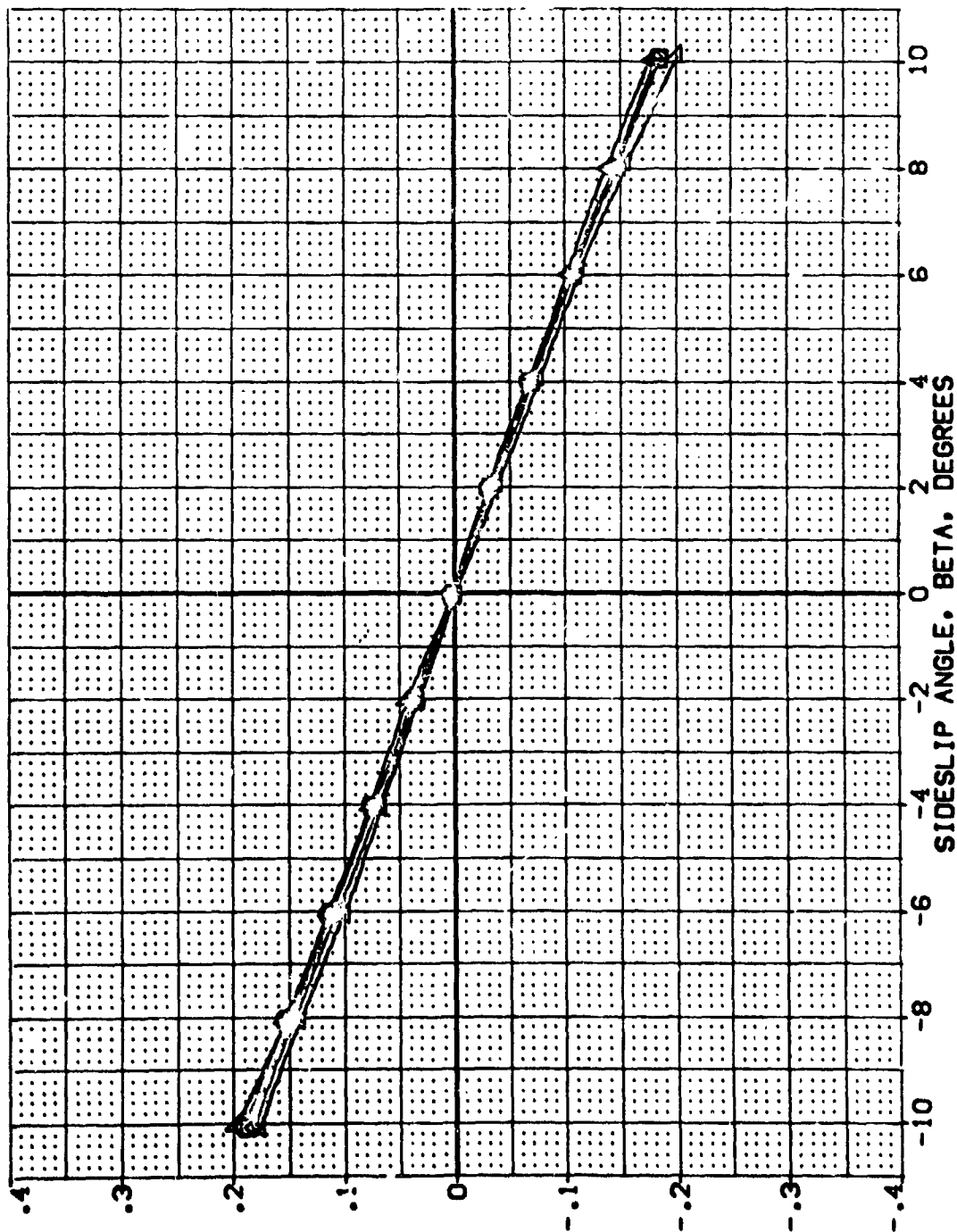


FIG 51 LATERAL DIRECTIONAL STABILITY, 85 DEG. FLARE, RUDDER = 0

MA MACH = .20



YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYMBET, PER DEGREE

SYMBOL  
O

SPDRK  
85.000

WACH  
ELEVON  
RUDDER

PARAMETRIC VALUES  
.200 BOFLAP  
.000 AILRON  
.000

-12.000  
.000

0A628 B26C9 H7F8 W116E28V8R5X9

(CDZ145)

REFERENCE INFORMATION  
SREF 4.4118 80. FT.  
LREF 19.2288 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5674 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

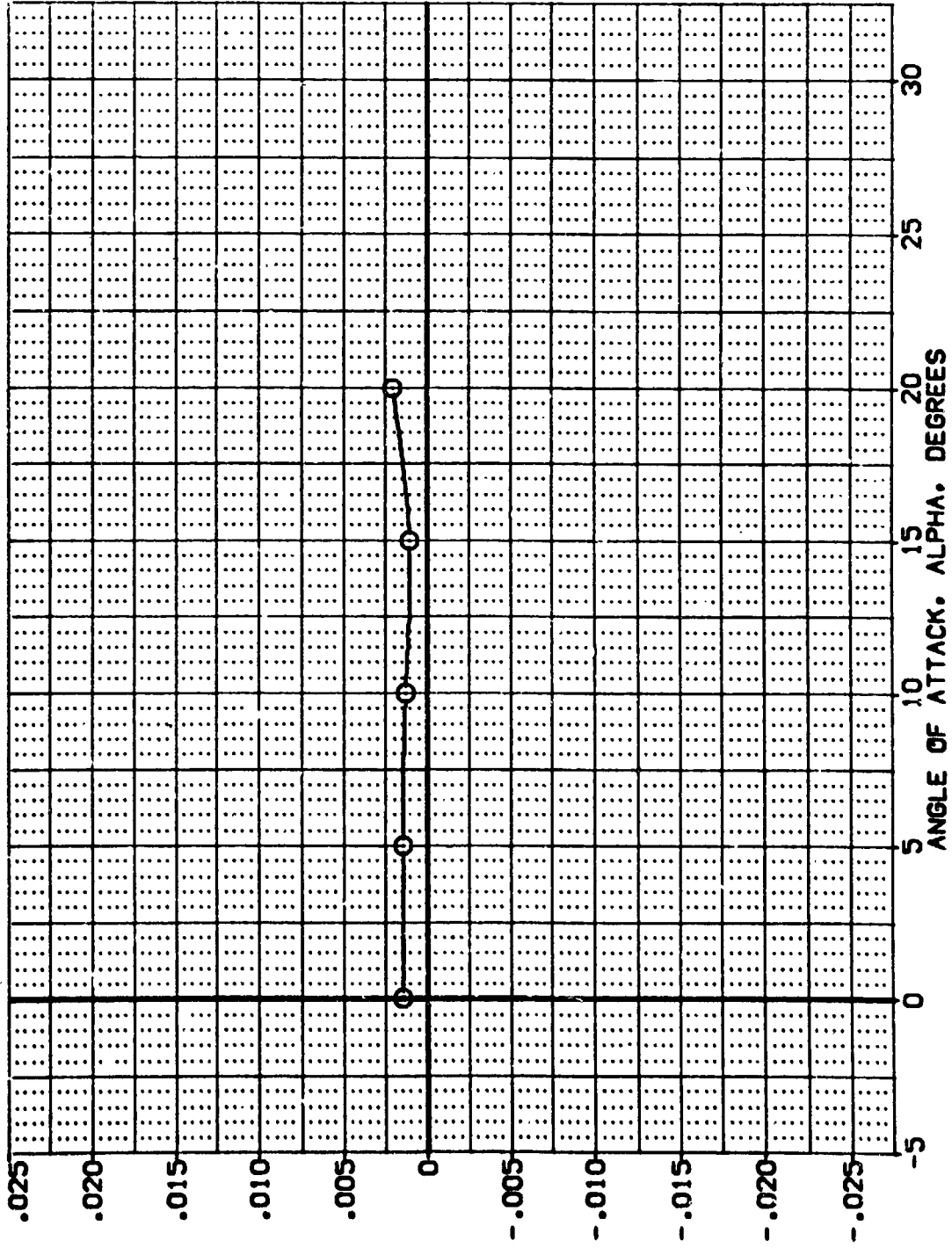


FIG 51 LATERAL DIRECTIONAL STABILITY, 85 DEG. FLARE, RUDDER = 0

SYMBOL  
O

SPRINK  
60.000

WACH  
ELEVON  
FLUDER

PARAMETRIC VALUES  
.200 BOFLAP  
.000 AILRON  
.000

-12.000  
.000

0A628 B26C9 M7F8 W116E28V8R5X9

(CDZ145)

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XREF 43.5974 INCHES  
YREF 10.0000 INCHES  
ZREF 15.1873 INCHES  
SCALE .0405

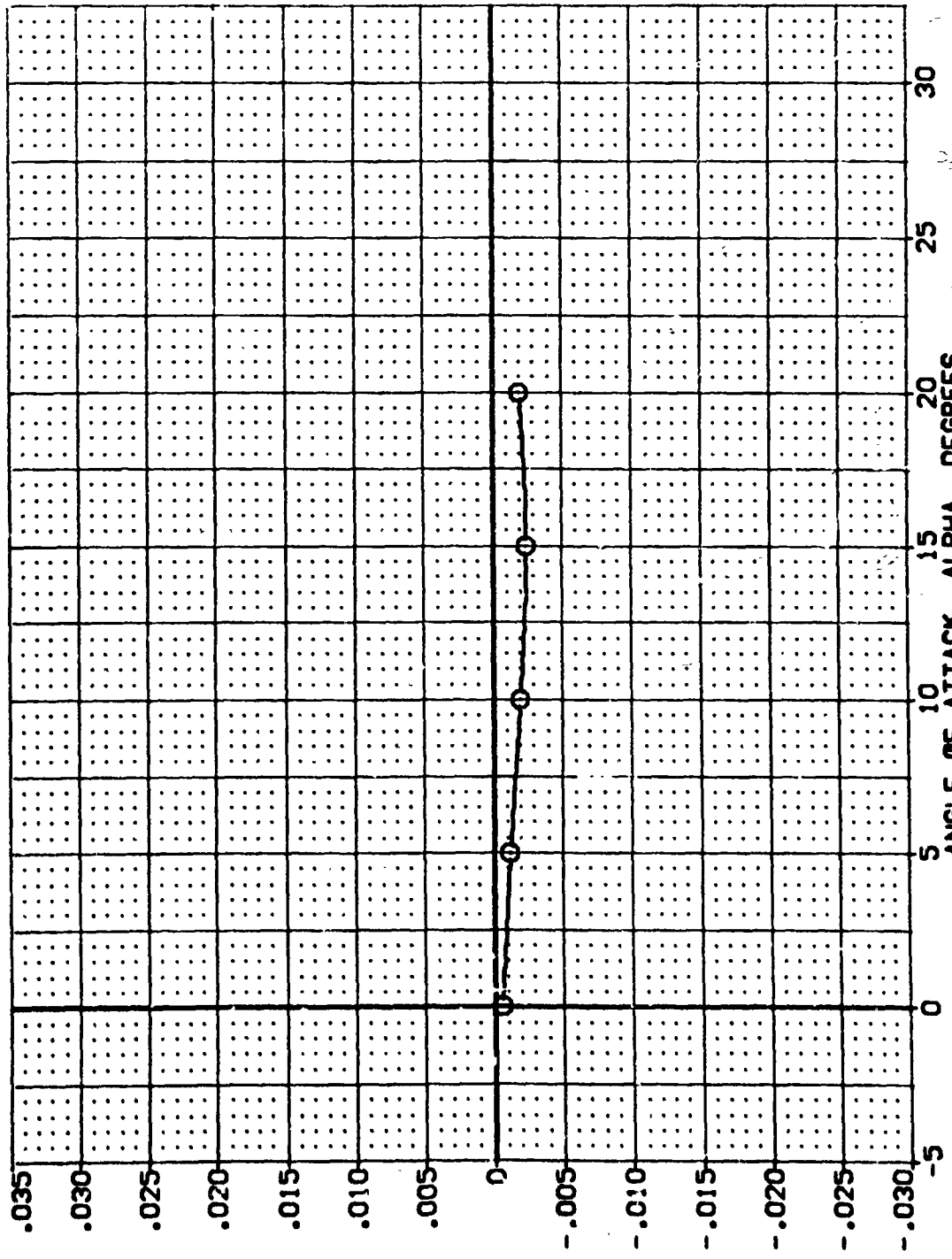


FIG 51 LATERAL DIRECTIONAL STABILITY, 85 DEG. FLARE, RUDDER = 0



0A628 B26C9 M7F8 W116E28V8R5X9

(C02145)

SYMBOL O  
SPDRK 85.000  
HIGH ELEVON RUDER  
PARAMETRIC VALUES  
.200 BDFLAP -12.000  
.000 AILTON .000  
REF 4.4118 20.47  
LREF 19.2258 INO-ES  
BREF 37.5356 INO-ES  
XTRP 43.5874 INO-ES  
YTRP .0000 INO-ES  
ZTRP 15.1875 INO-ES  
SCALE .0405 SCALE

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

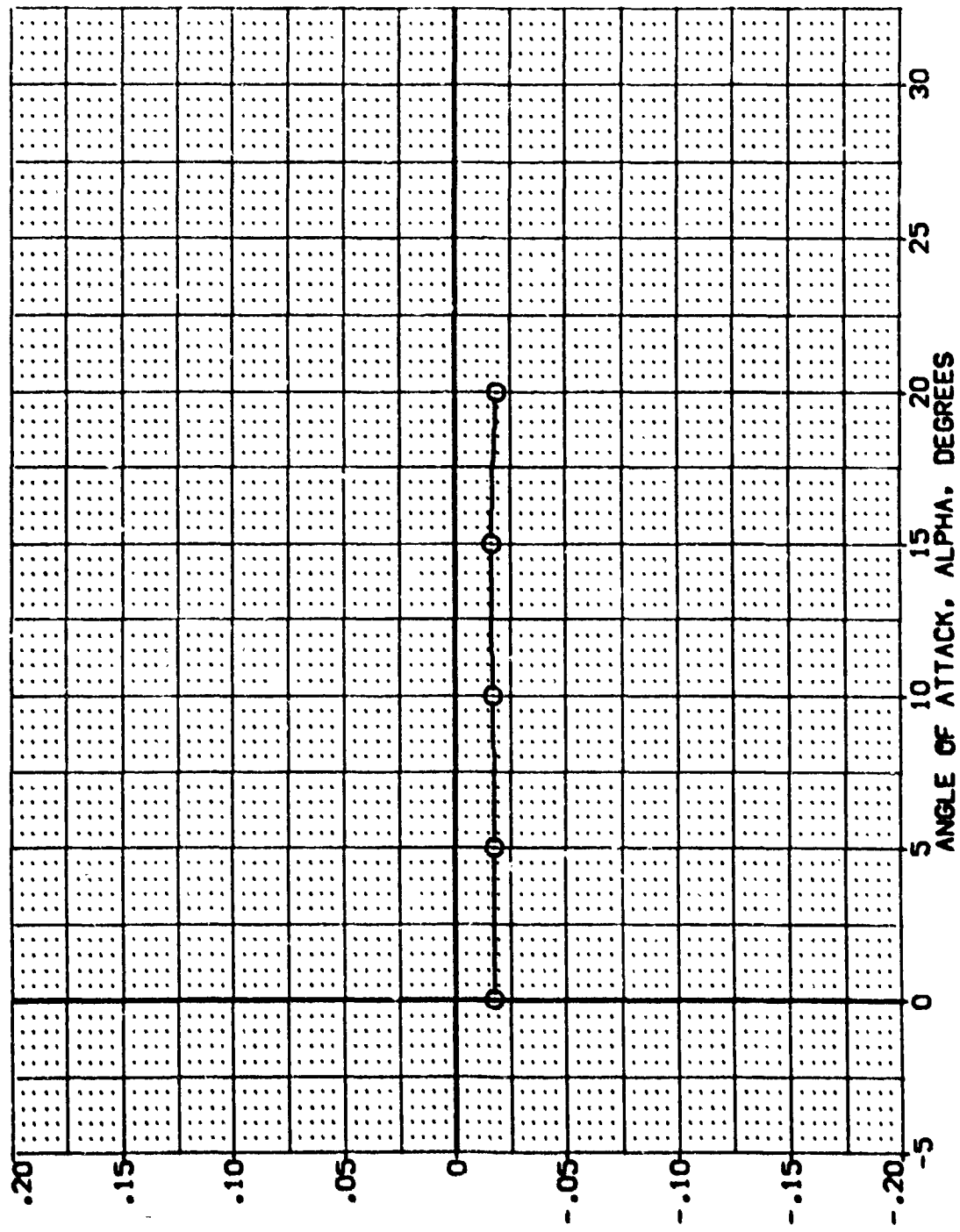


FIG 51 LATERAL DIRECTIONAL STABILITY, 85 DEG. FLARE, RUDDER = 0

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRK	AILRON	REFERENCE INFORMATION
[R02307]	04628 B26C3 M7F8 V116E28V8F5C3	.000	.000	55.000	.000	SREF 4.4119 SQ.FT.
[R02308]	04628 B26C3 M7F8 V116E28V8F5C3	5.000	.000	55.000	.000	LREF 19.2289 INO-ES
[R02309]	04628 B26C3 M7F8 V116E28V8F5C3	10.000	.000	55.000	.000	BREF 37.9359 INO-ES
[R02340]	04628 B26C3 M7F8 V116E28V8F5C3	15.000	.000	55.000	.000	XREF 43.5974 INO-ES
[R02341]	04628 B26C3 M7F8 V116E28V8F5C3	20.000	.000	55.000	.000	YREF 15.1875 INO-ES
						ZREF .0405 INO-ES
						SCALE

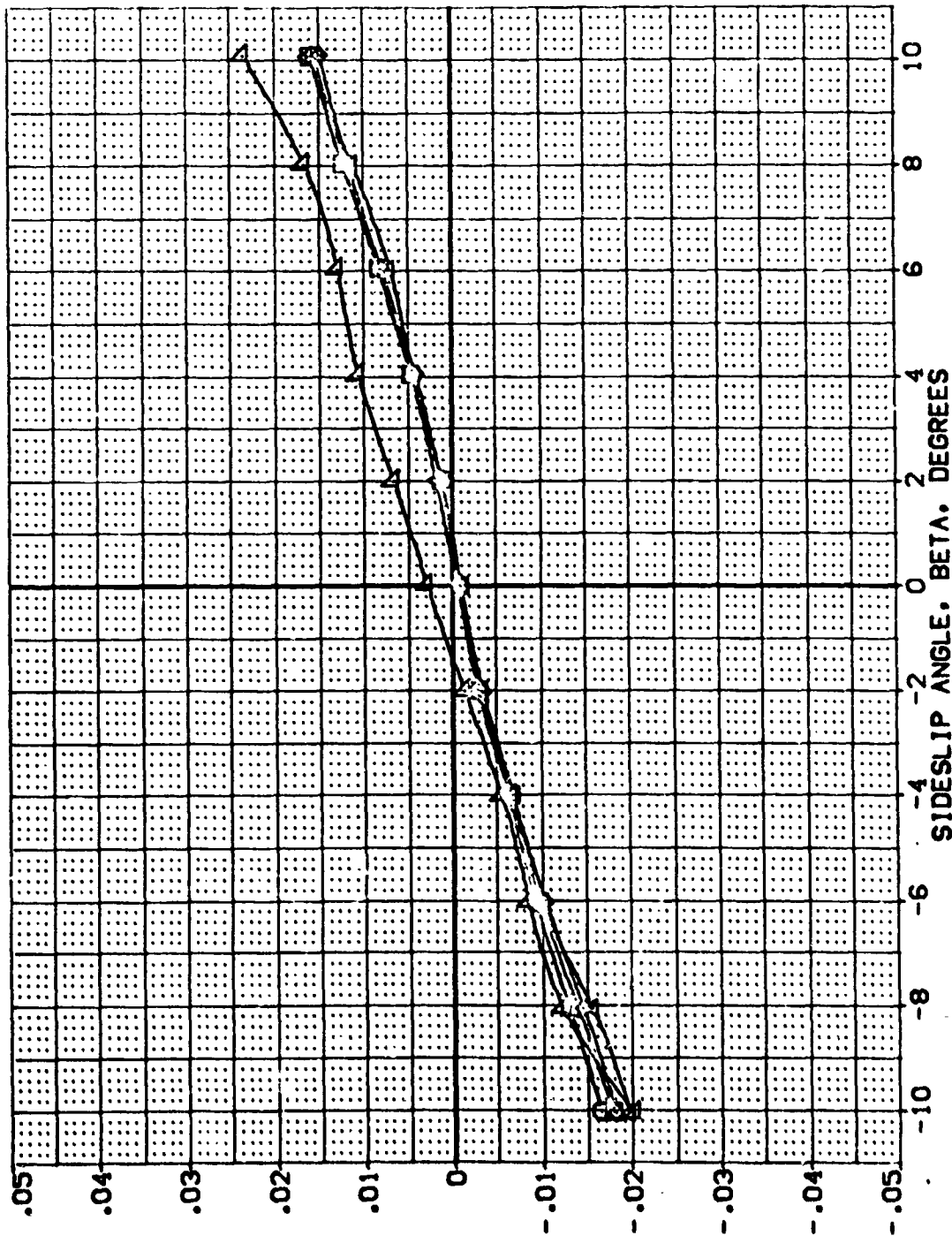


FIG 52 LATERAL DIRECTIONAL STABILITY, 55 DEG. FLARE, RUDDER = 0

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPORK	ATLORN	REFERENCE INFORMATION
{RDZ307}	04628 82803 M78 V118228V8503	.000	.000	55.000	.000	REF 4.4119 50.000
{RDZ308}	04628 82803 M78 V118228V8503	.000	.000	55.000	.000	REF 19.2289 100.000
{RDZ309}	04628 82803 M78 V118228V8503	.000	.000	55.000	.000	REF 37.5559 100.000
{RDZ310}	04628 82803 M78 V118228V8503	.000	.000	55.000	.000	REF 43.5574 100.000
{RDZ311}	04628 82803 M78 V118228V8503	.000	.000	55.000	.000	REF 15.1875 100.000
		5.000	.000			SCALE .0405
		10.000	.000			
		15.000	.000			
		20.000	.000			

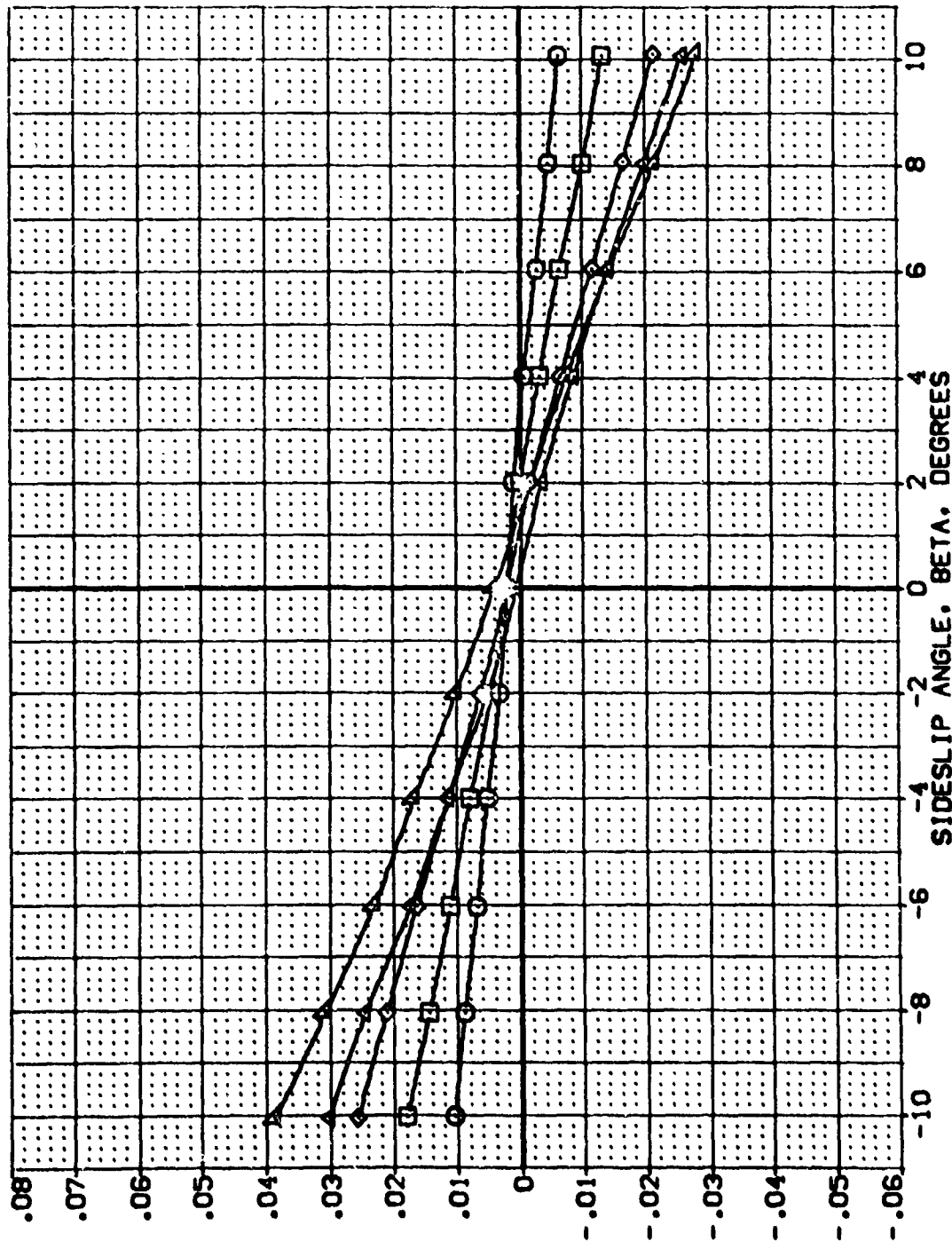


FIG 52 LATERAL DIRECTIONAL STABILITY, 55 DEG. FLARE, RUDDER = 0

(M)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPORK	ATLORN	REFERENCE INFORMATION
[RUZZ07]	0A628 B28C9 M7F8 V116Z28V85C9	.000	.000	\$5.000	.000	SREF 4.4118 SQ.FT.
[RUZZ08]	0A628 B28C9 M7F8 V116Z28V85C9	5.000	.000	\$5.000	.000	LREF 19.2289 INCHES
[RUZZ09]	0A628 B28C9 M7F8 V116Z28V85C9	10.000	.000	\$5.000	.000	BREF 37.8559 INCHES
[RUZZ10]	0A628 B28C9 M7F8 V116Z28V85C9	15.000	.000	\$5.000	.000	XTRP 43.5574 INCHES
[RUZZ11]	0A628 B28C9 M7F8 V116Z28V85C9	20.000	.000	\$5.000	.000	YTRP .0000 INCHES
						ZTRP 15.1875 INCHES
						SCALE .0405

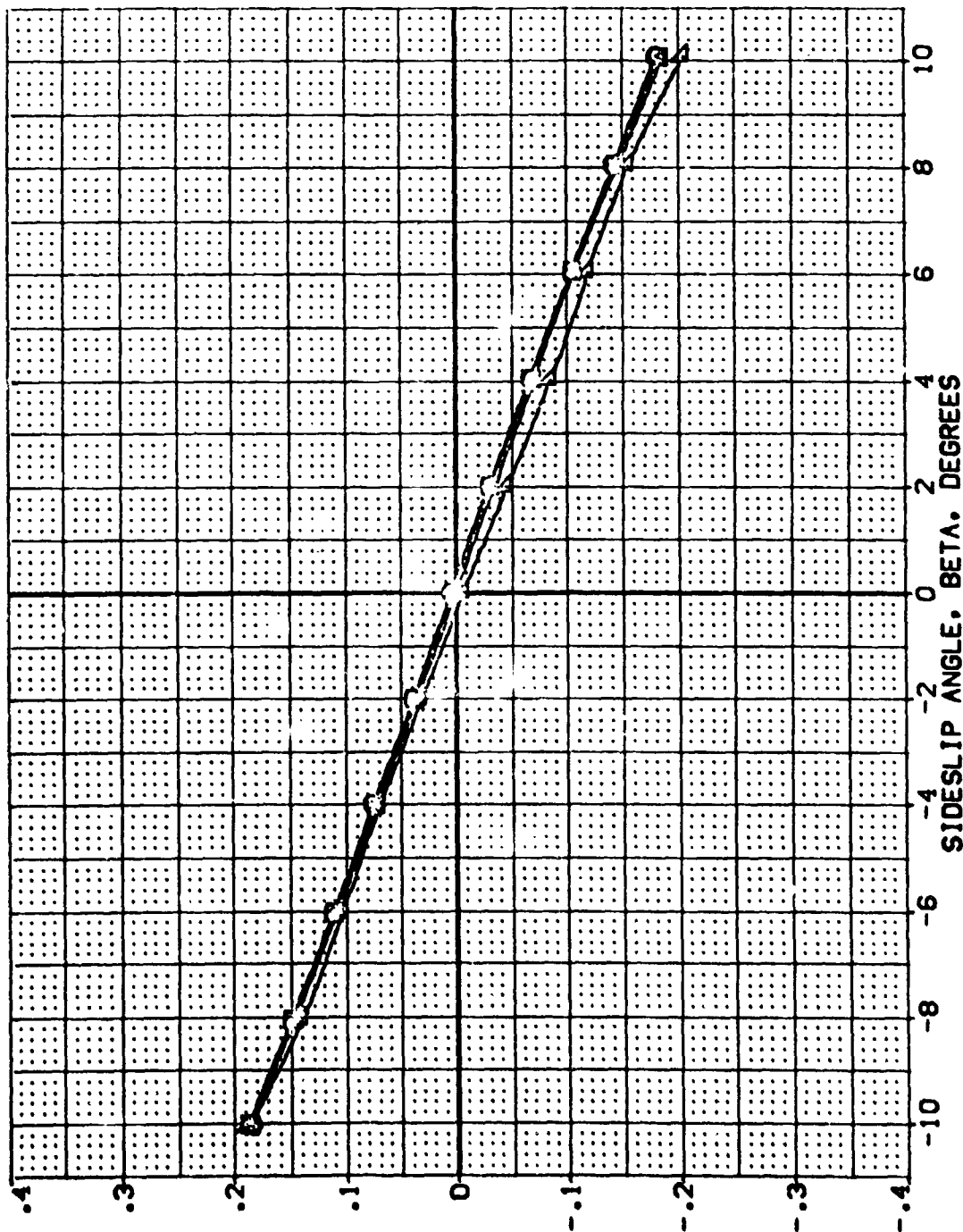


FIG 52 LATERAL DIRECTIONAL STABILITY, 55 DEG. FLARE, RUDDER = 0

(A)MACH = .20



SWR  
0

0A628 B26C9 M7F8 W116E28V8R5X9 (CDZ337)

PARAMETRIC VALUES	
WCH	.200
BDLAP	-12.000
ELEVON	.000
RUDDER	.000

REFERENCE INFORMATION

SREF	4.4119	SG.FT.
LREF	19.2259	INCHES
BREF	37.5359	INCHES
XREF	43.5974	INCHES
YREF	15.0000	INCHES
ZREF	15.1875	INCHES
SCALE	.0405	SCALE

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYMBET, PER DEGREE

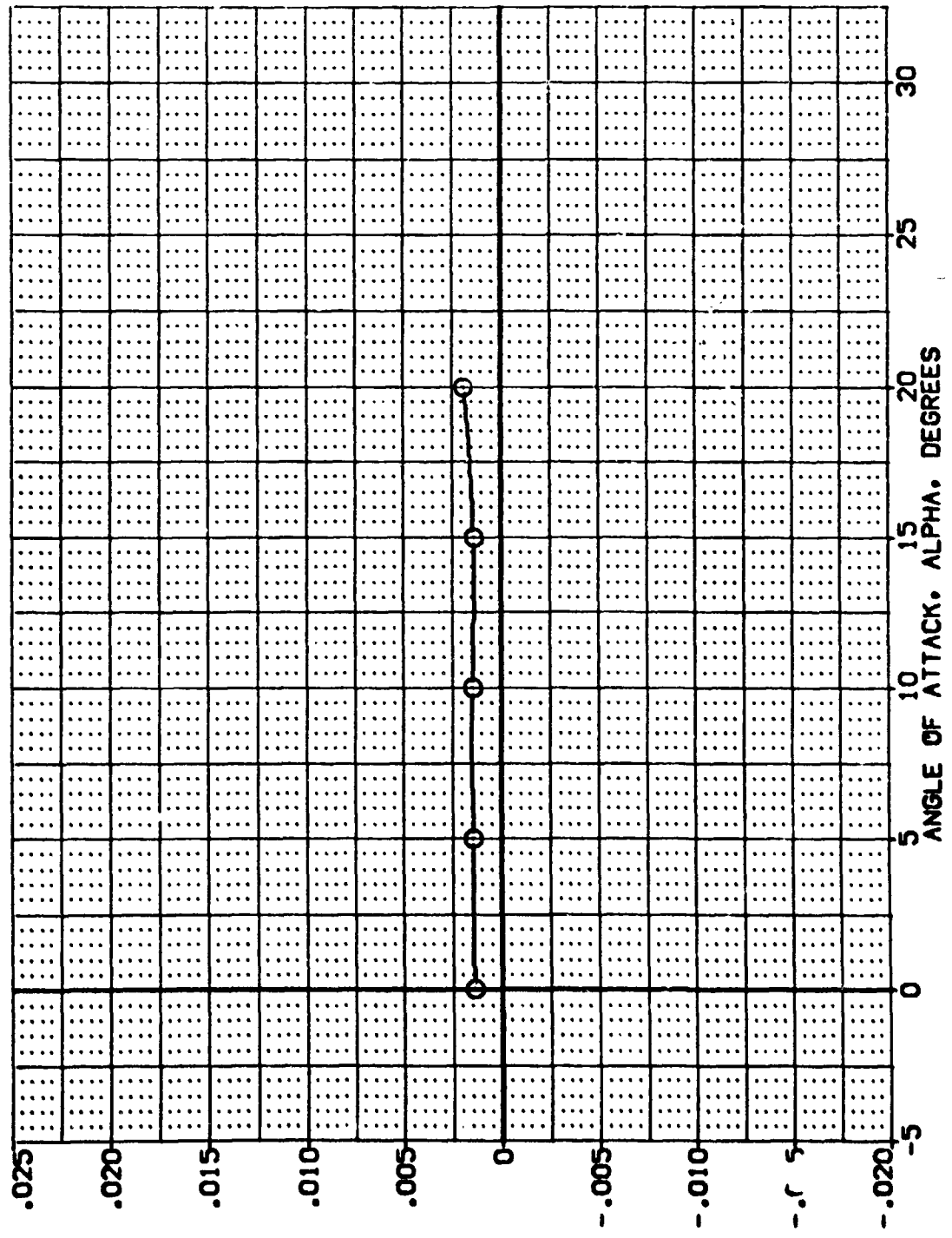


FIG 52 LATERAL DIRECTIONAL STABILITY, 55 DEG. FLARE, RUDDER = 0

SYMBOL  $\phi$  SPDRK 55.000  
 WACH ELEVON RUDDER  
 GA628 B26C9 M7F8 W116E28V8R5X9 (C0Z337)  
 PARAMETRIC VALUES  
 .200 BOFLAP -12.000  
 .000 AILRON .000  
 .000  
 REFERENCE INFORMATION  
 BREF 4.4119 SQ.FT.  
 LREF 19.2259 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

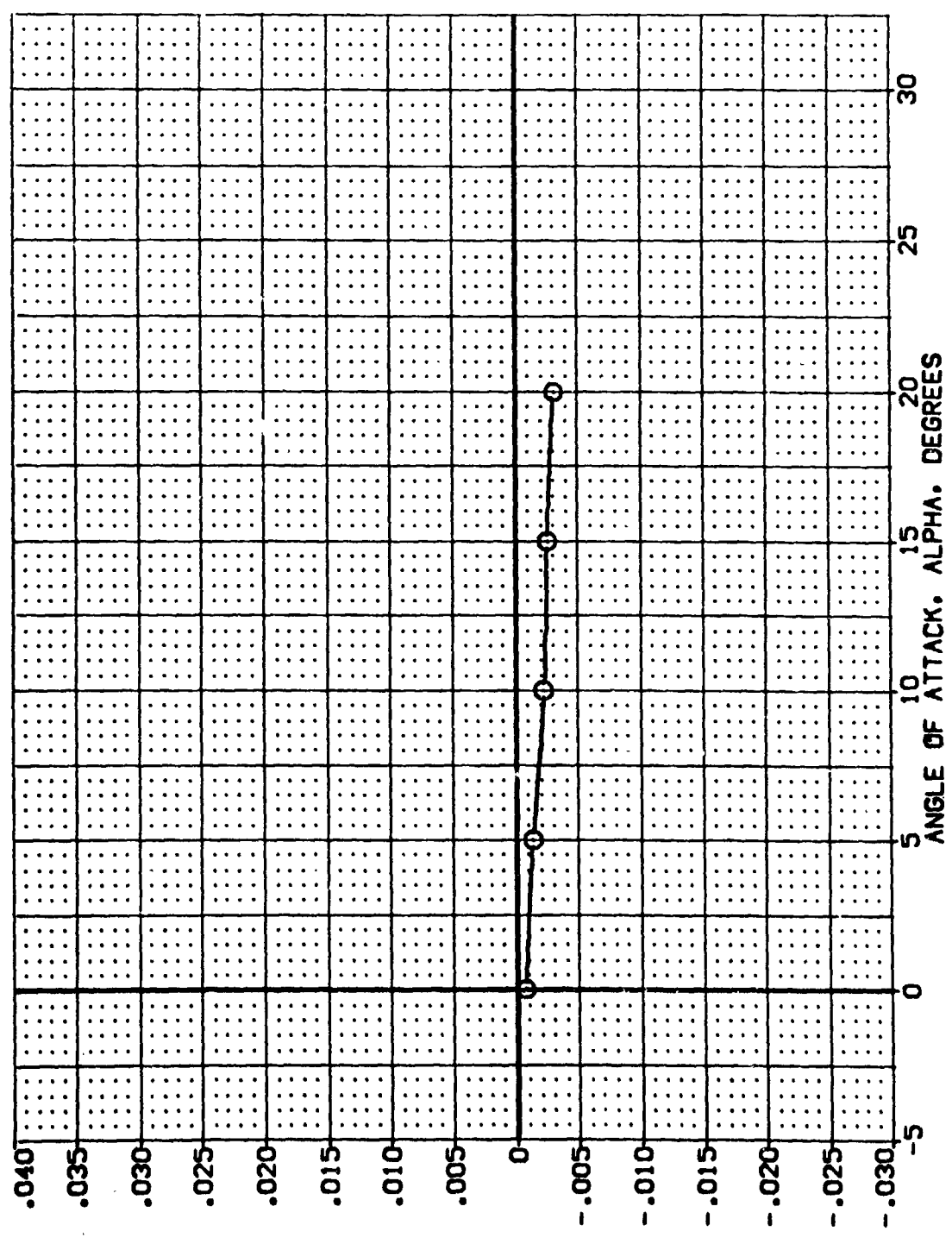


FIG 52 LATERAL DIRECTIONAL STABILITY, 55 DEG. FLARE, RUDDER = 0

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE





SYMBOL  
O

0A628 B26C9 M7F8 W116E28V8R5X9  
 SPDRK 55.000  
 MAG-1  
 ELEVON  
 RUDDER  
 PARAMETRIC VALUES  
 .200 BDFLAP -12.000  
 .000 AILRON .000  
 .000

(CDZ337)

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2259 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5574 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1675 INCHES  
 SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

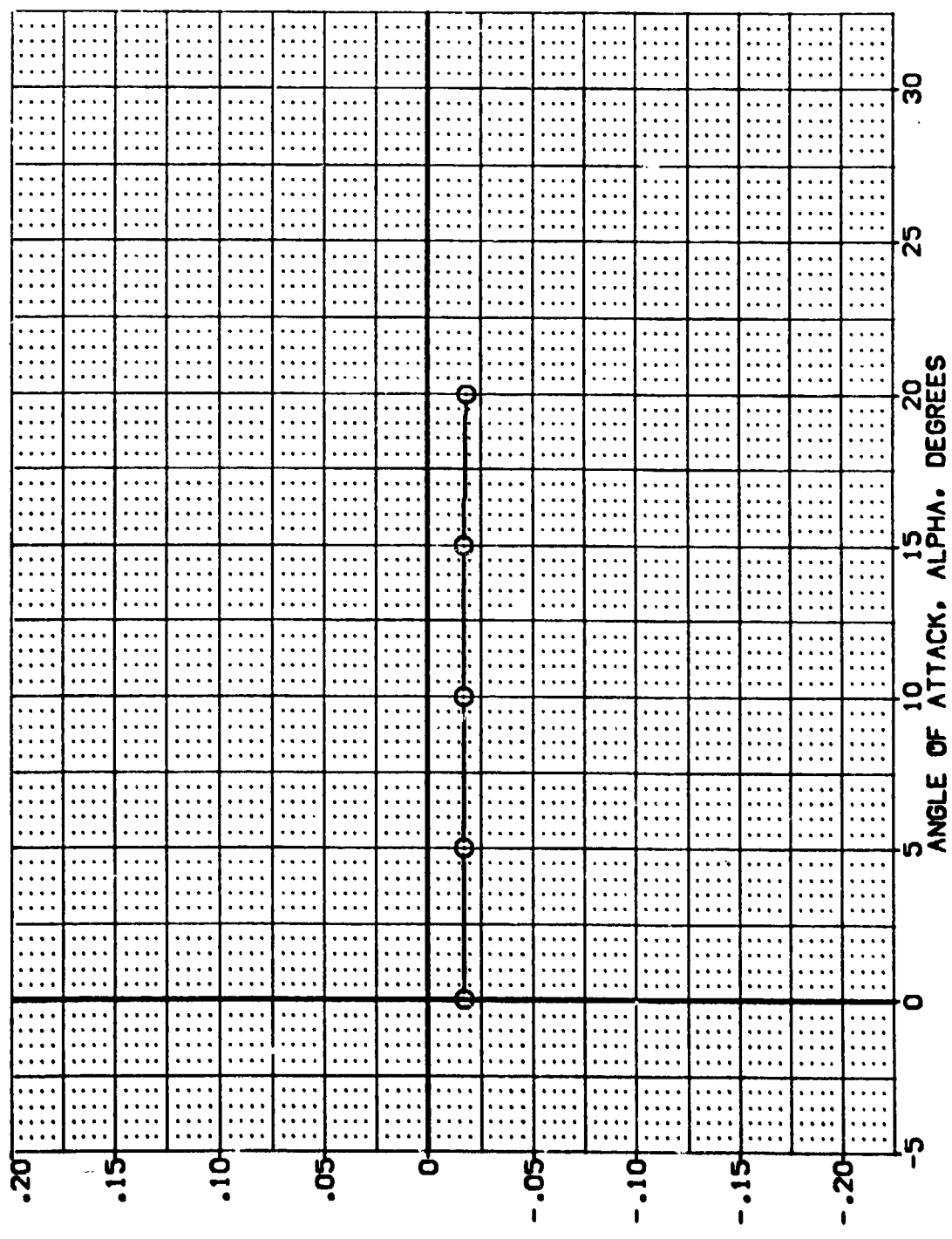


FIG 52 LATERAL DIRECTIONAL STABILITY, 55 DEG. FLARE, RUDDER = 0

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	BDFLAP	RUDDER	REFERENCE INFORMATION
{R0228}	0A628 826C9 M778 V118E28/85X19	.000	.000	-12.000	.000	SREF 4.4119 SQ.FT.
{R02152}	0A628 826C9 M778 V118E28/85X19	.000	26.000	-12.000	.000	LREF 19.2269 INCHES
{R02138}	0A628 826C9 M778 V118E28/85X19	.000	49.000	-12.000	.000	BREF 37.9359 INCHES
{R02106}	0A628 826C9 M778 V118E28/85X19	.000	59.000	-12.000	.000	XREF 43.5974 INCHES
{R02144}	0A628 826C9 M778 V118E28/85X19	.000	66.000	-12.000	.000	ZREF 15.1875 INCHES
						SCALE .0405

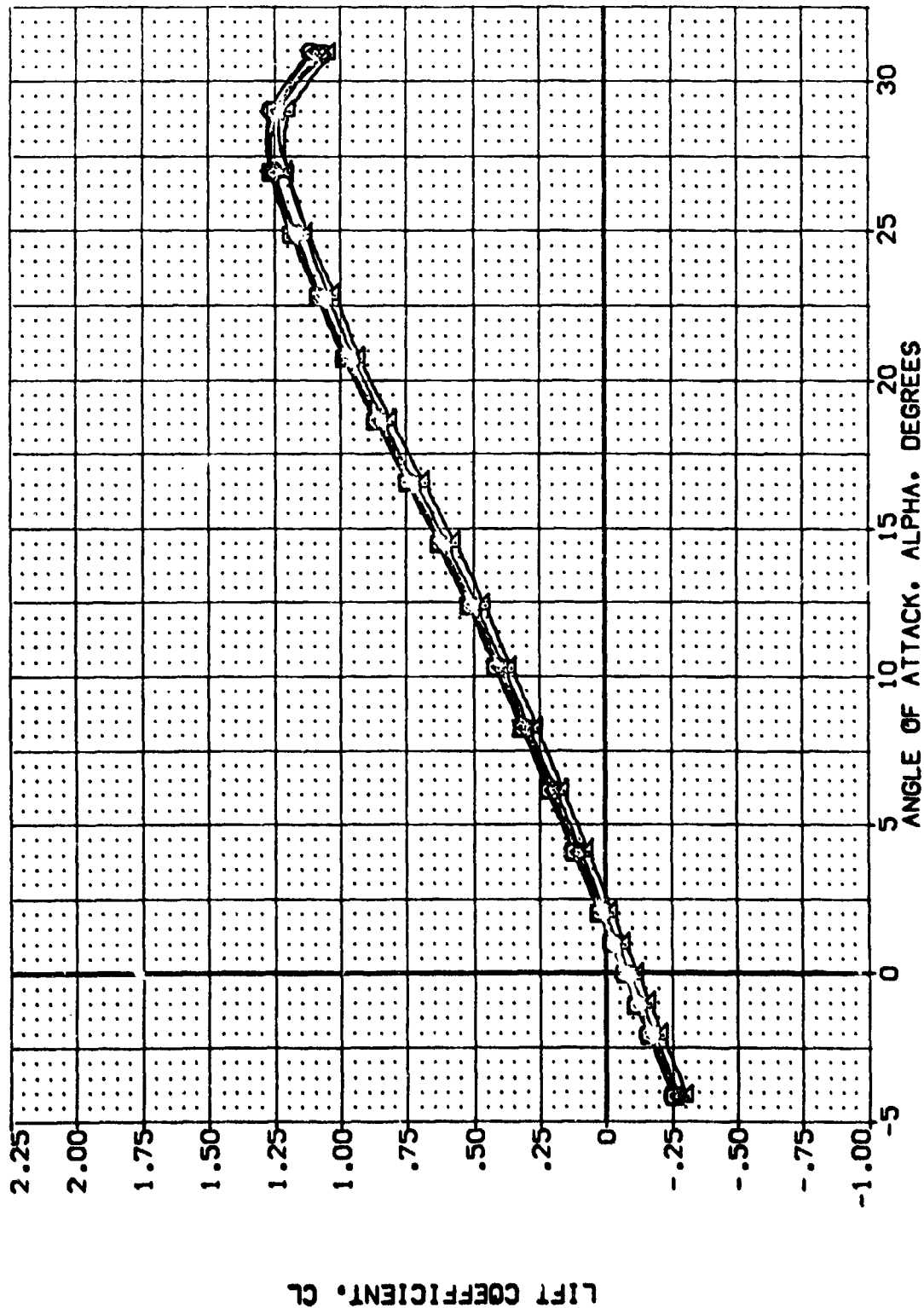


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOILER	EDFLAP	RUDDER	REFERENCE INFORMATION
[R02228]	04528 E25C3 M7F8 V116E28V8R5C9	.000	.000	-12.000	.000	SREF 4.4119 50.FT.
[R02152]	04528 E25C3 M7F8 V116E28V8R5C9	.000	25.000	-12.000	.000	UREF 19.2259 INCHES
[R02153]	04528 E25C3 M7F8 V116E28V8R5C9	.000	40.000	-12.000	.000	BREF 37.9359 INCHES
[R02235]	04528 E25C3 M7F8 V116E28V8R5C9	.000	55.000	-12.000	.000	XREF 43.5974 INCHES
[R02144]	04528 E25C3 M7F8 V116E28V8R5C9	.000	85.000	-12.000	.000	YREF 15.1875 INCHES
						ZREF .0405 INCHES
						SCALE

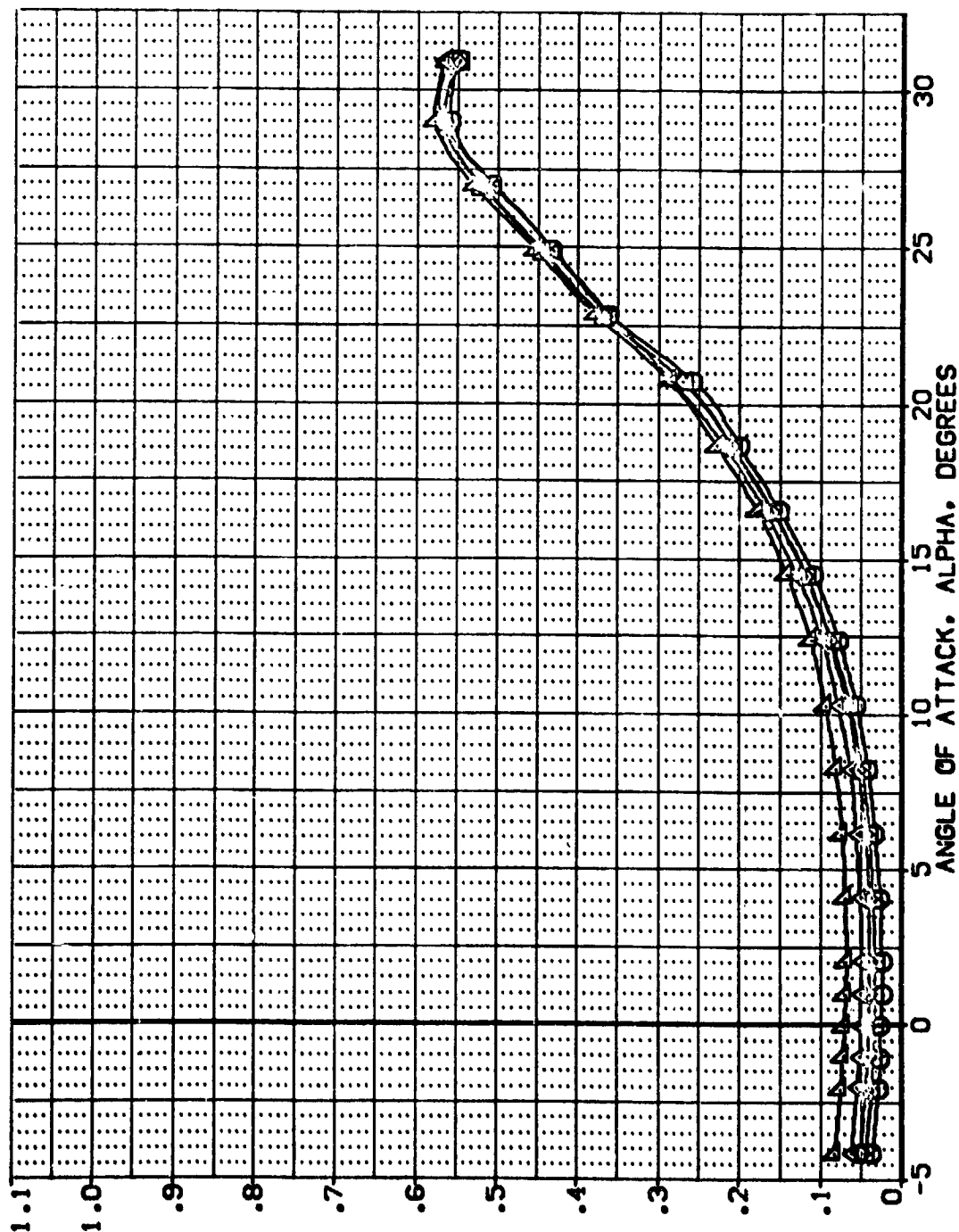


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOILER	BD FLAP	RUDDER	REFERENCE INFORMATION
{R0228}	04628 826C3 M7F8 V116228/826C3	.000	.000	-12.000	.000	SREF 4.4119 SQ.FT.
{R0229}	04628 826C3 M7F8 V116228/826C3	.000	.000	-12.000	.000	LREF 19.2259 INCHES
{R0230}	04628 826C3 M7F8 V116228/826C3	.000	25.000	-12.000	.000	BREF 37.9359 INCHES
{R0231}	04628 826C3 M7F8 V116228/826C3	.000	40.000	-12.000	.000	XREF 43.5974 INCHES
{R0232}	04628 826C3 M7F8 V116228/826C3	.000	55.000	-12.000	.000	YREF .0000 INCHES
{R0233}	04628 826C3 M7F8 V116228/826C3	.000	65.000	-12.000	.000	ZREF 15.1875 INCHES
						SCALE .0405

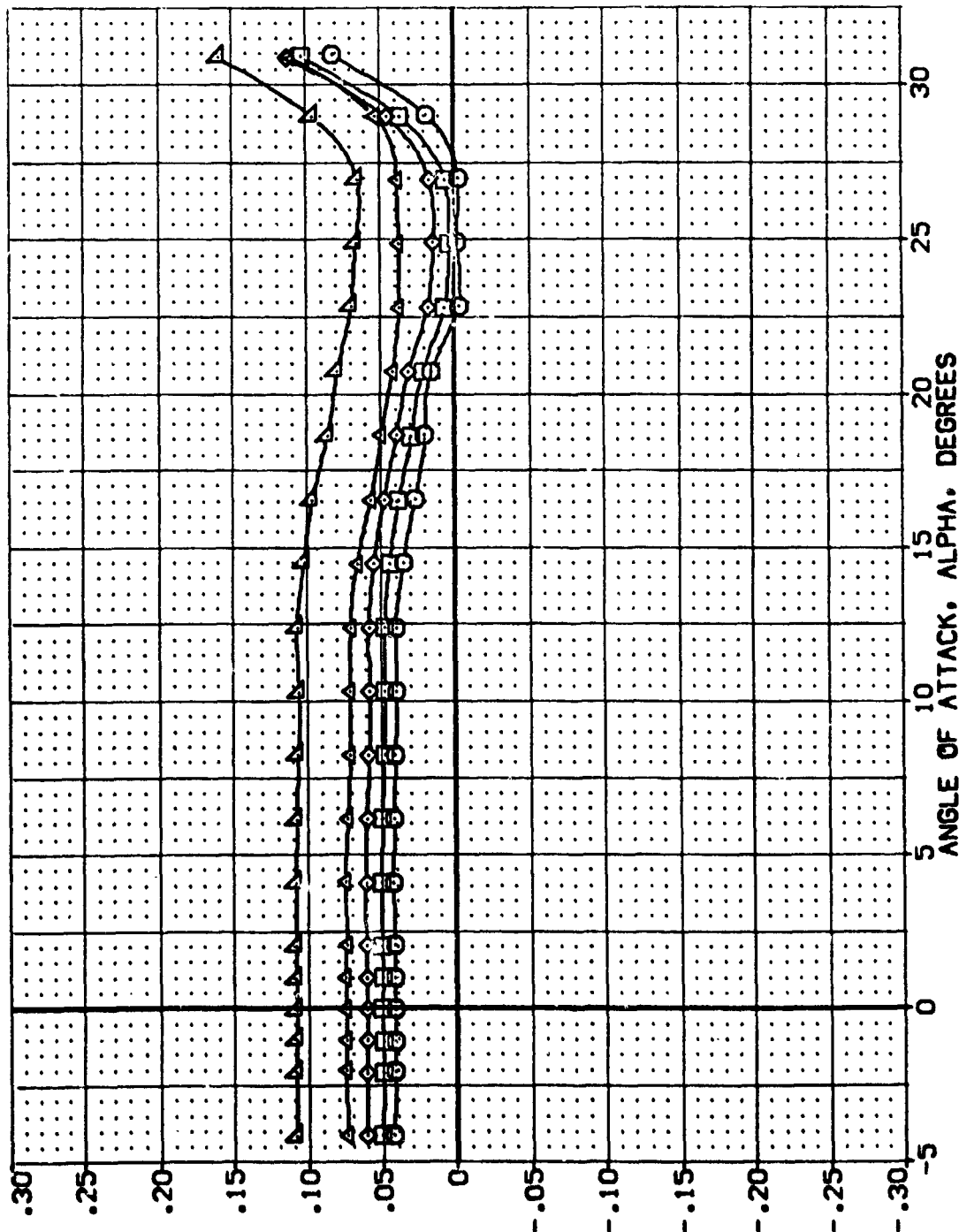


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORCK	BOFLAP	RUDDER	REFERENCE INFORMATION
[R02228]	04528 02003 M7F8 V116E28V8P5V3	.000	.000	-12.000	.000	GREF 4.4119 50. FT.
[R02152]	04528 02003 M7F8 V116E28V8P5V3	.000	25.000	-12.000	.000	LREF 19.2289 INCHES
[R02138]	04528 02003 M7F8 V116E28V8P5V3	.000	40.000	-12.000	.000	BREF 37.5359 INCHES
[R02106]	04528 02003 M7F8 V116E28V8P5V3	.000	55.000	-12.000	.000	XREF 43.5574 INCHES
[R02144]	04528 02003 M7F8 V116E28V8P5V3	.000	65.000	-12.000	.000	YREF .0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405

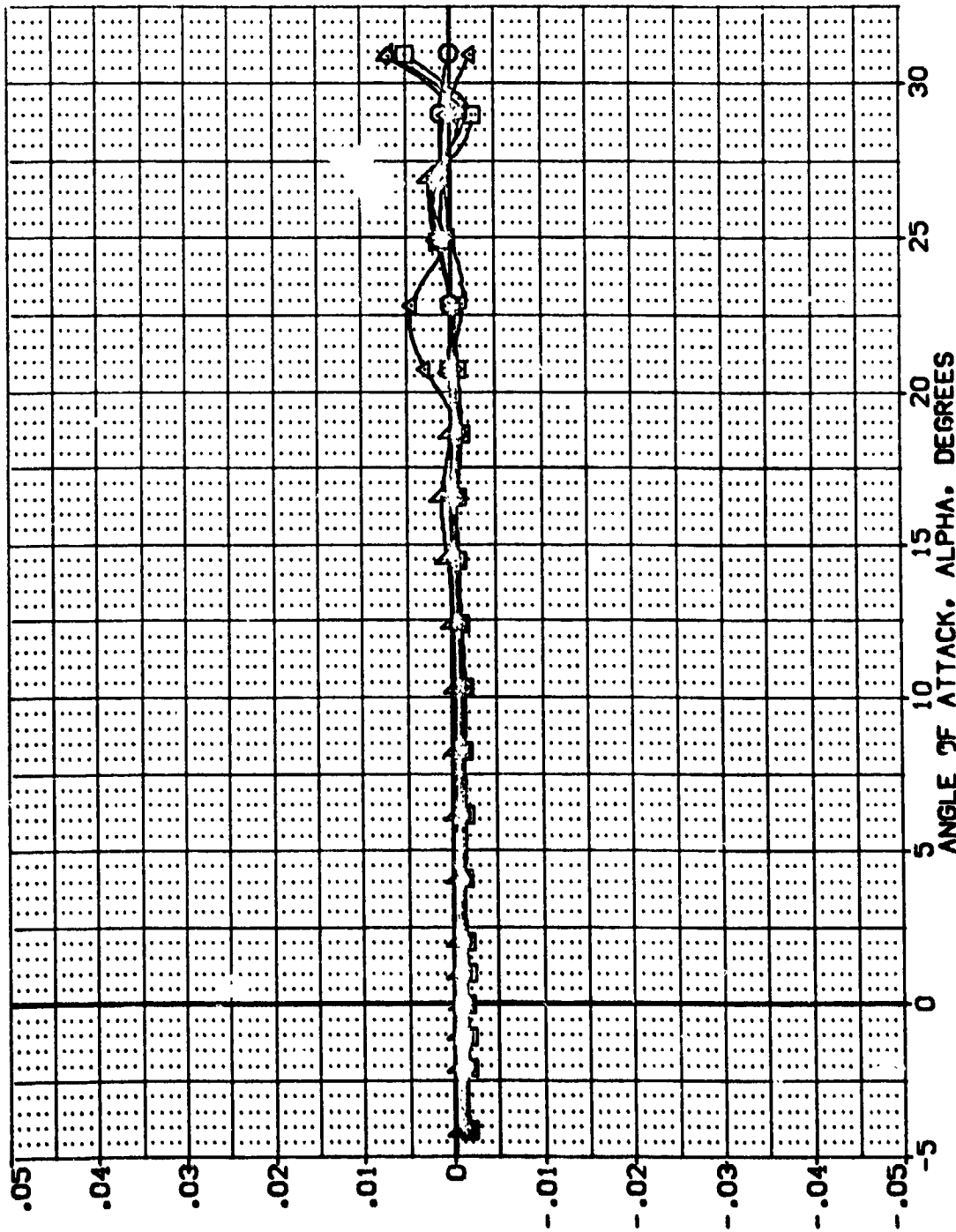


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOILER	BOFLAP	RUDDER	REFERENCE INFORMATION
{R02228}	0A628 828C3 M778 V116E28V85C3	.000	.000	-12.000	.000	SREF 4.4119 SQ.FT.
{R02157}	0A628 828C3 M778 V116E28V85C3	.000	25.000	-12.000	.000	LREF 19.2259 INCHES
{R02138}	0A628 828C3 M778 V116E28V85C3	.000	40.000	-12.000	.000	BREF 37.9359 INCHES
{R02336}	0A628 828C3 M778 V116E28V85C3	.000	55.000	-12.000	.000	XREF 43.5974 INCHES
{R02144}	0A628 828C3 M778 V116E28V85C3	.000	65.000	-12.000	.000	YREF .0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

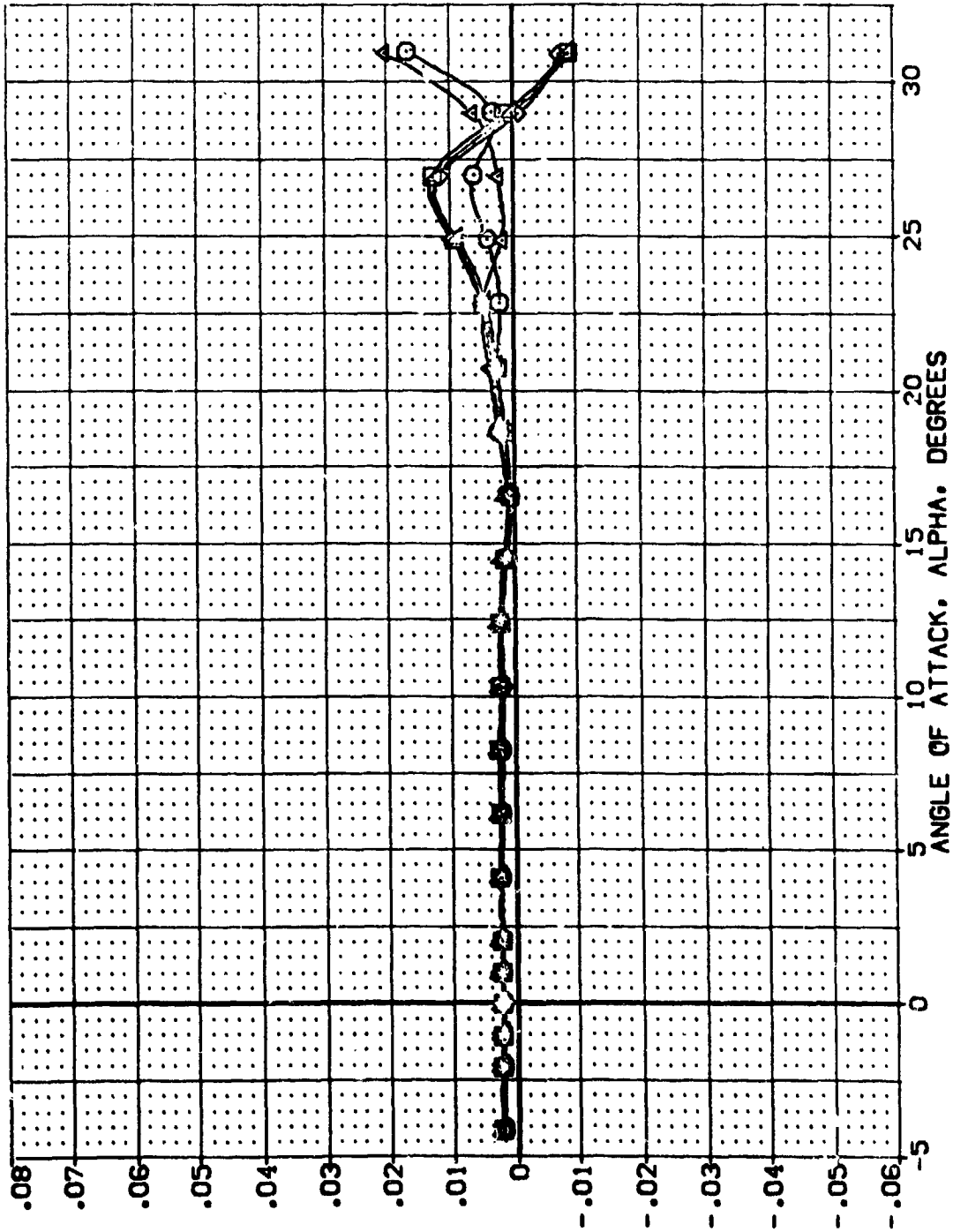


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(A)MACH = .20



DATA SET SYMOL	CONFIGURATION DESCRIPTION	ELEVON	SPDBRK	BDFLAP	RUDDER	REFERENCE INFORMATION
[R02228]	04528 026C9 M7F8 V118E28V85X9	.000	.000	-12.000	.000	SREF 4.4119 SQ.FT
[R02152]	04528 026C9 M7F8 V118E28V85X9	.000	.000	-12.000	.000	LBREF 19.2289 INCHES
[R02138]	04528 026C9 M7F8 V118E28V85X9	.000	.000	-12.000	.000	BREF 37.5339 INCHES
[R02306]	04528 026C9 M7F8 V118E28V85X9	.000	.000	-12.000	.000	YMRP 43.5874 INCHES
[R02144]	04528 026C9 M7F8 V118E28V85X9	.000	.000	-12.000	.000	ZMRP 15.1875 INCHES
						SCALE .0405

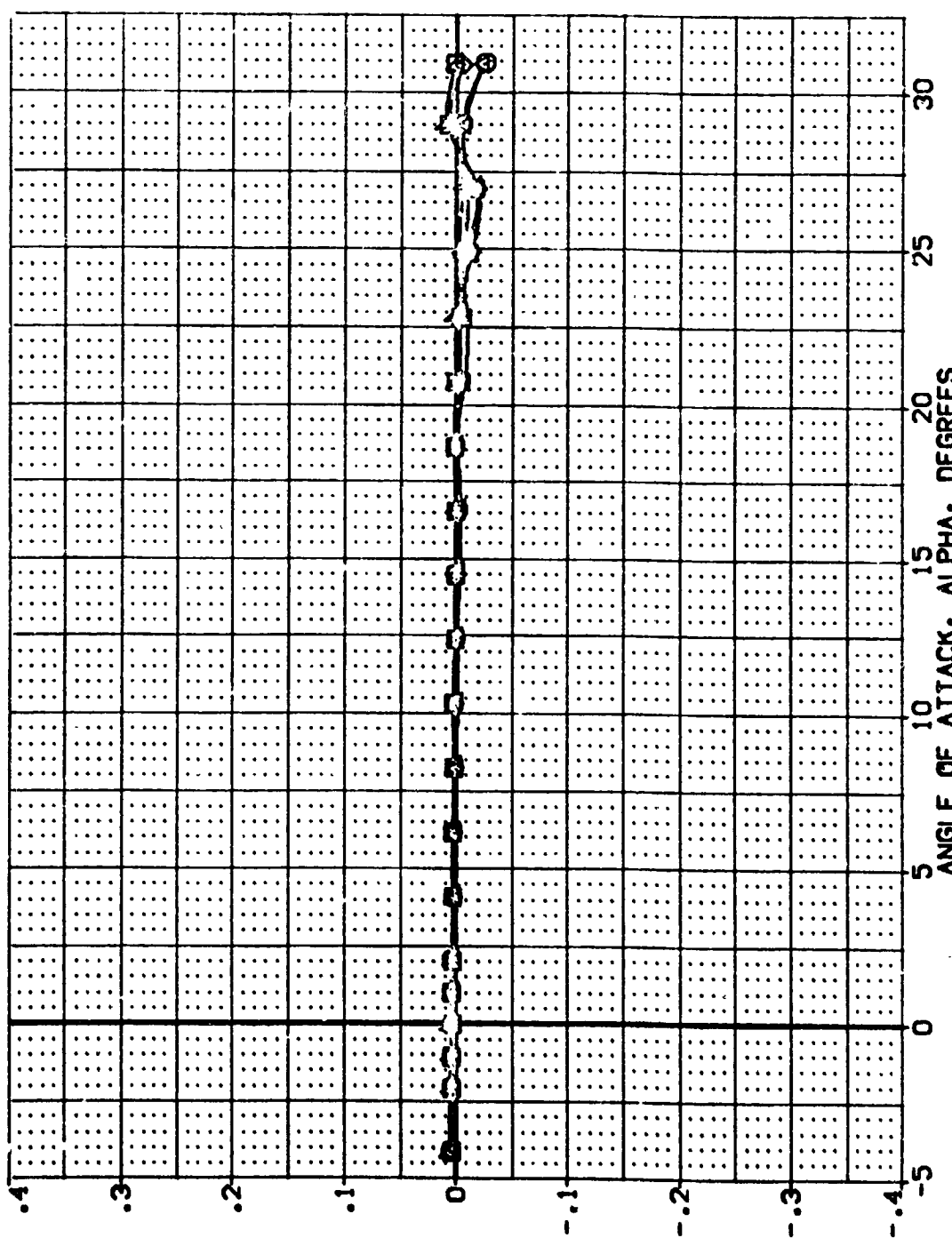


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

[A]MACH = .20



0A628 B26C9 M7F8 W11F 28V8R5X9 (G0Z228)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0	-4.000	80FLAP	-200	DELTA	.000	DATASET	SPOBRK	SREF
		RUDDER	-12.000	AILRON	.000	G0Z228	25.000	19.239
		M-LWD	.000	BETA	.000	G0Z138	55.000	37.9359
			.000		85.000	G0Z144		43.5974
								.0000
								15.1875
								.0405
								SCALE
								SO.FT.
								INCHES
								INCHES
								INCHES
								INCHES
								SCALE

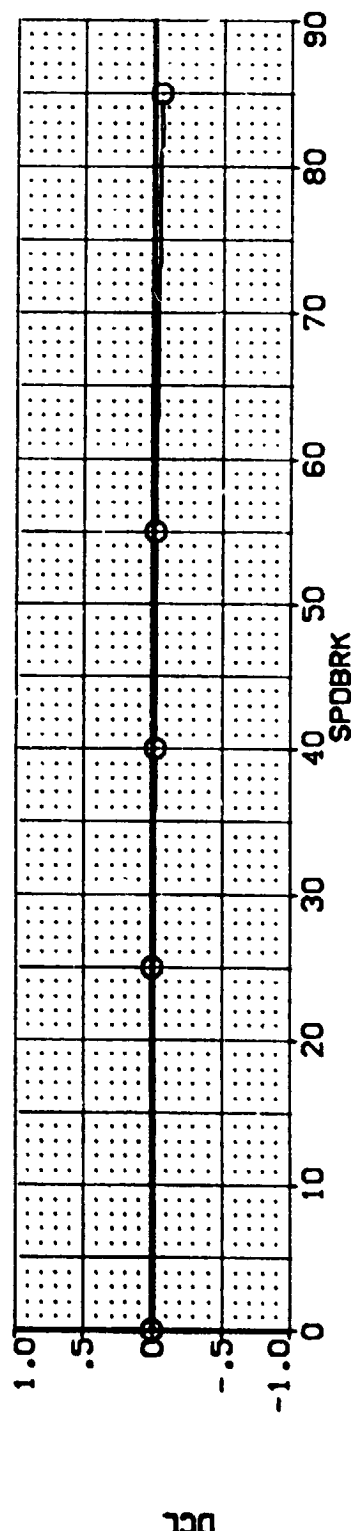
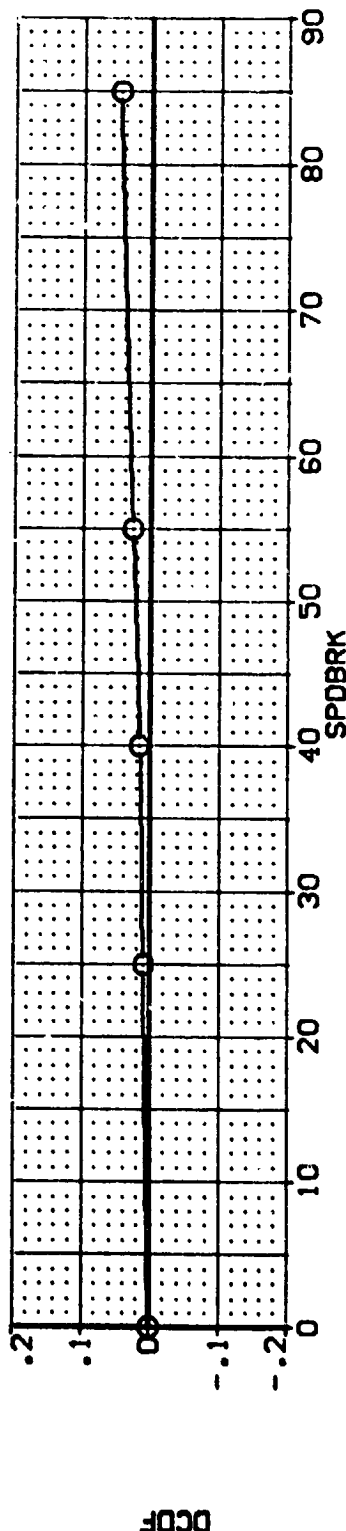
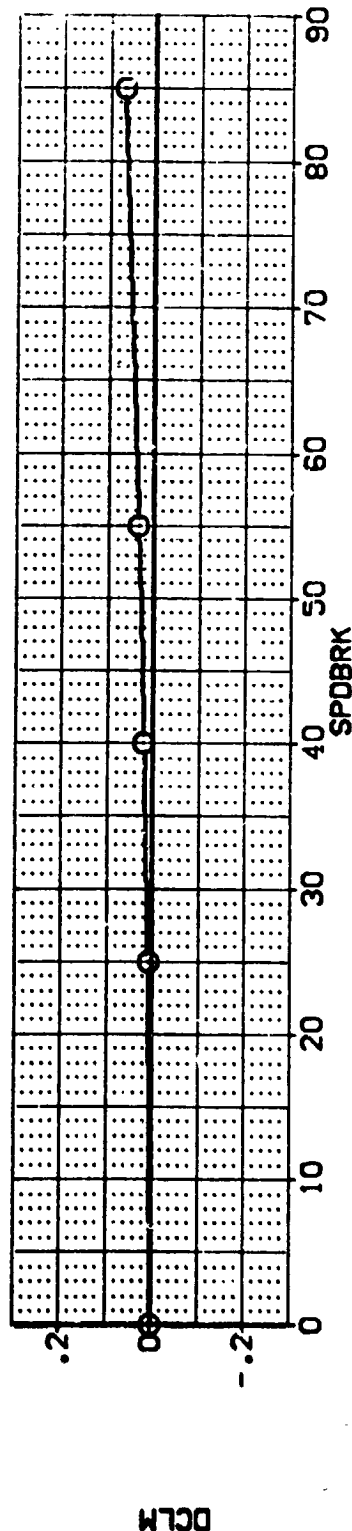


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



3

66

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	-2.000	DATA SET	SPDRK	REF	SD, FT.
WCH	.200	DELVEN	.000	G0Z228	IN-ES
REFLAP	-12.000	ALLUM	.000	G0Z228	IN-ES
RUDDER	.000	BETA	.000	G0Z138	IN-ES
RUDDA	.000		65.000	G0Z144	IN-ES
				YPR	IN-ES
				ZPR	IN-ES
				SCALE	SCALE

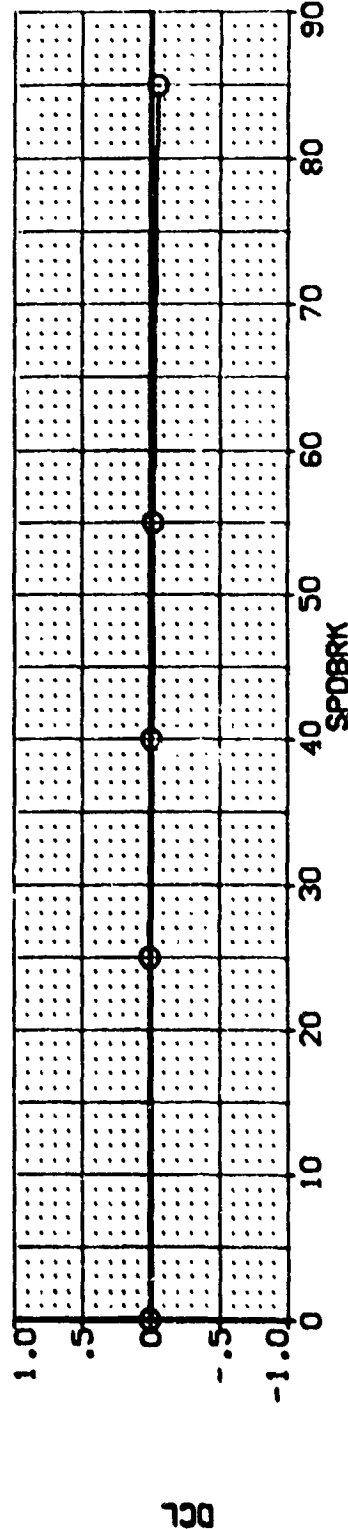
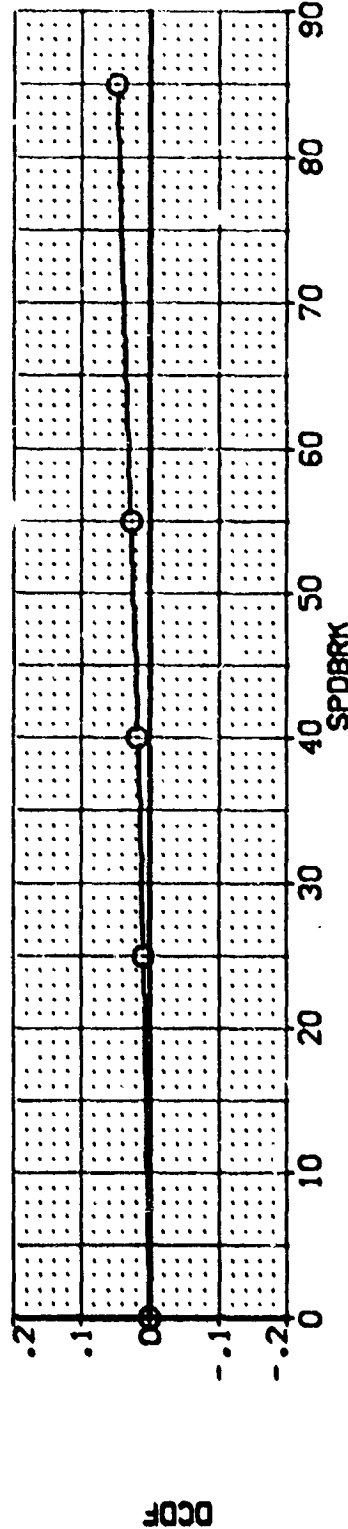
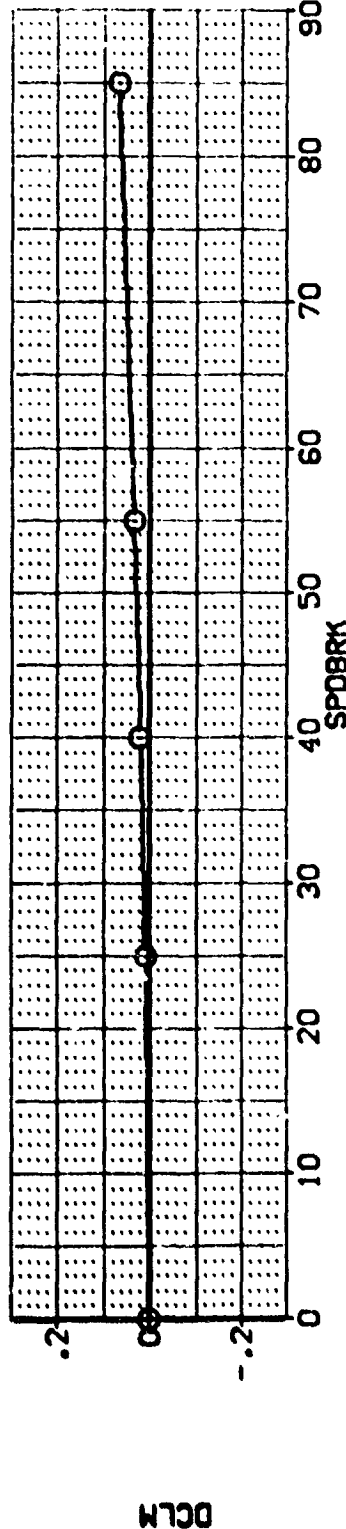
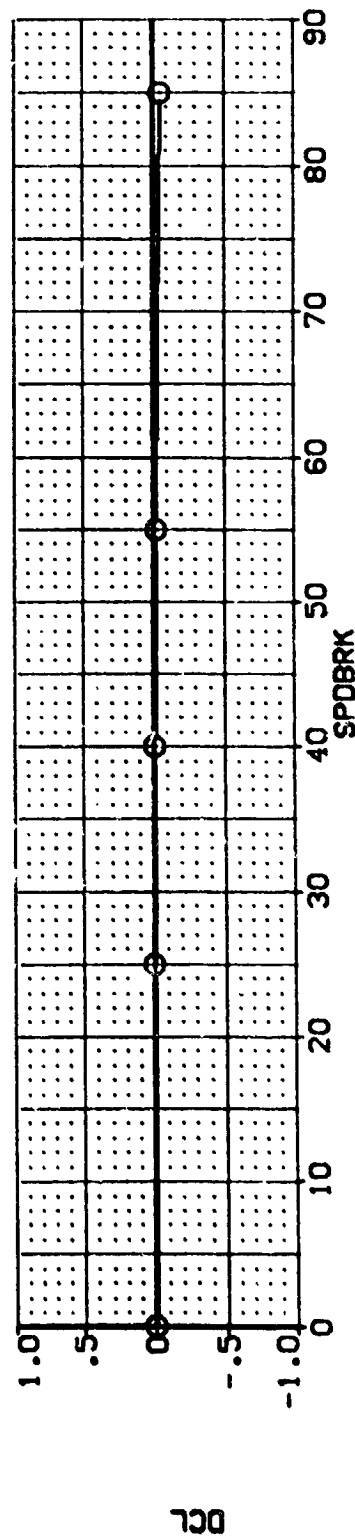
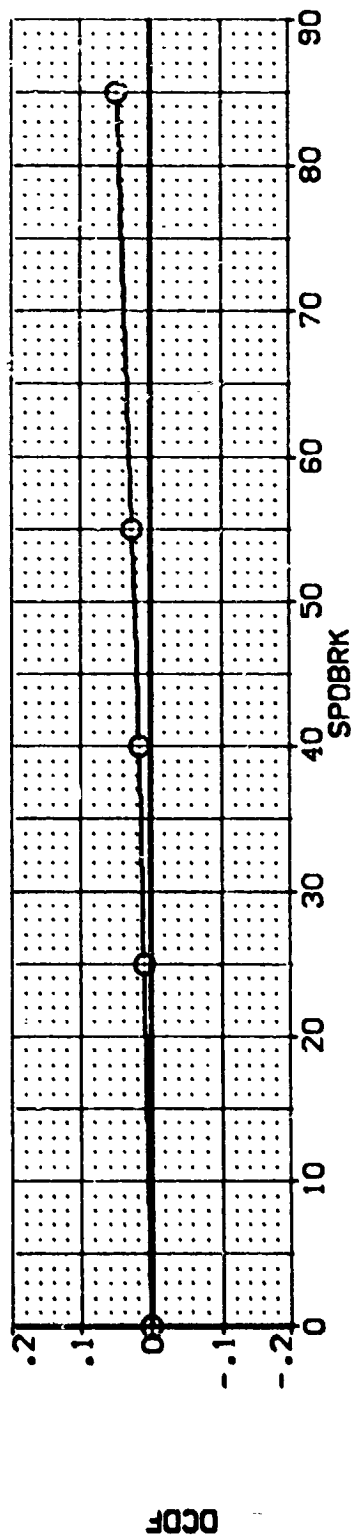
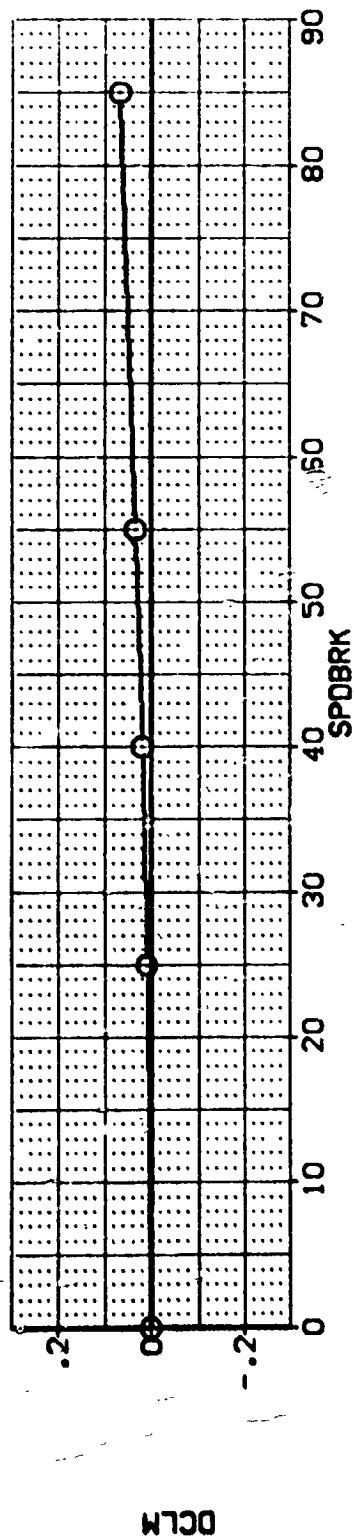


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

GA

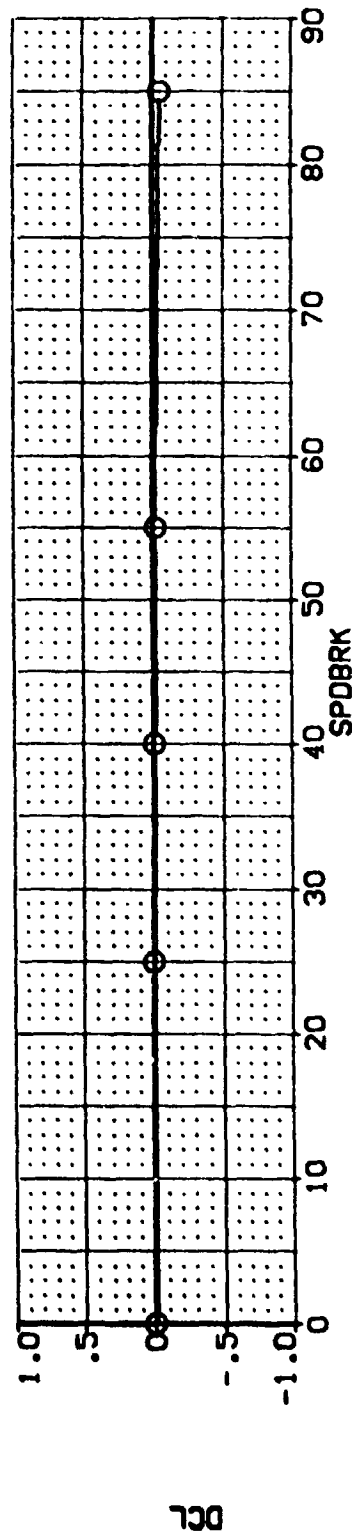
PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
ALPHA		
-1.000		
MACH		
0.000		
REFLAP		
0.000		
FLUID		
0.000		
REL-LOAD		
0.000		
DELTON		
-12.000		
AIL-ON		
0.000		
BETA		
0.000		
DATASET		
0.000		
G02228		
G02138		
G02144		
SPOBRK		
0.000		
25.000		
55.000		
REF		
19.2259		
37.9059		
43.5574		
0.000		
15.1875		
0.0405		
SO-FT		
NO-ES		
NO-ES		
NO-ES		
NO-ES		
NO-ES		
NO-ES		
SCALE		



PAGE 622



**0**



0A628 B26C9 M7F8 W116E28V8R5X9 (GDZ228)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0	1.000		.200	DELTA	.000	SPDRK	SPDRK	50. FT
		BDLAP	-12.000	AILRON	.000	GDZ228	25.000	INCHES
		RUDDER	.000	BETA	.000	GDZ138	55.000	INCHES
		RLURAD	.000		65.000	GDZ336	43.5374	INCHES
						YMRP	15.1875	INCHES
						ZMRP	.0405	SCALE

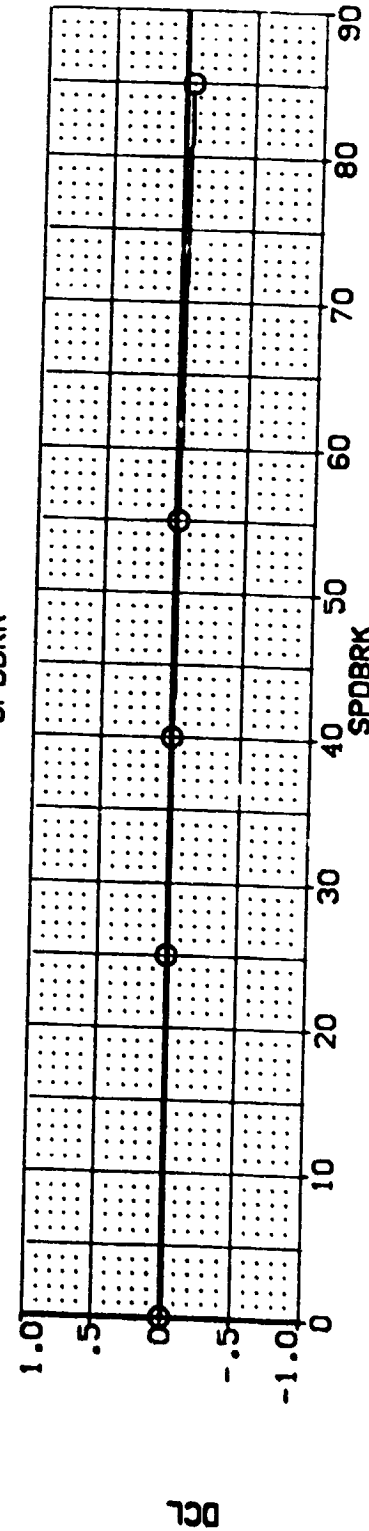
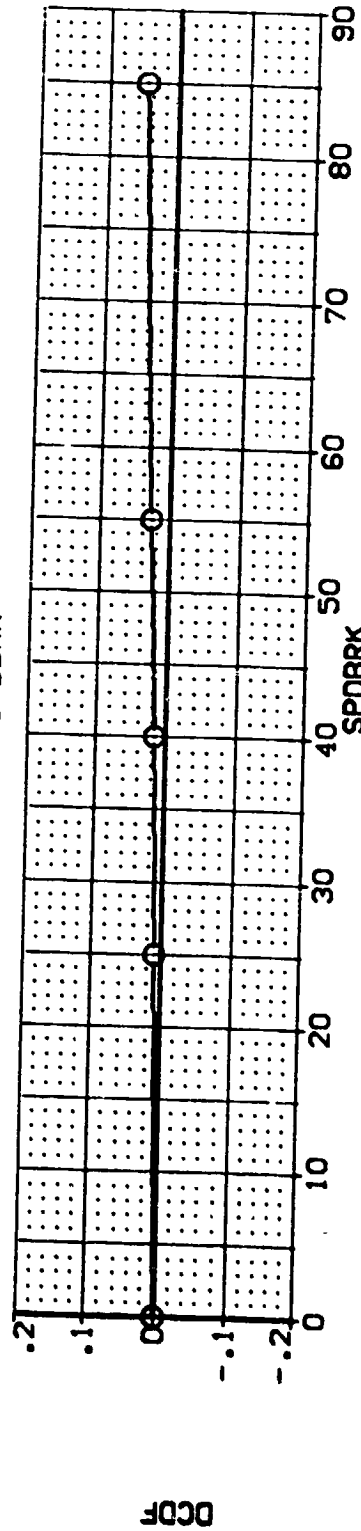
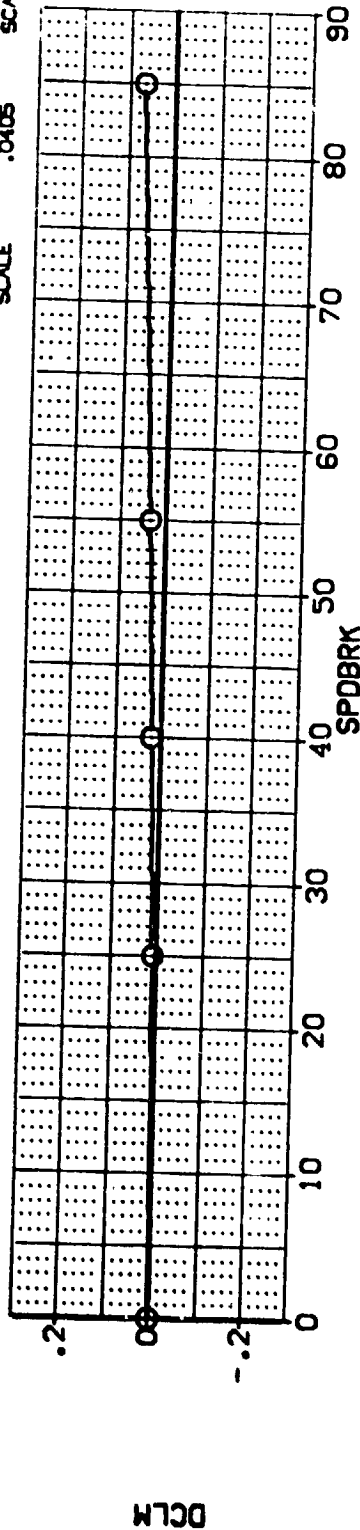


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

**GA**

PARAMETER	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
INTERCEPT	0			
WACH	2.000	.000	SPORBK	SPST 90.F1 14.4119
BOFLAP		.000	GOZ228	LEF INDEES 19.2289
FLUDR		.000	GOZ138	REF INDEES 27.9359
RLJRD		.000	GOZ144	XPRP INDEES 43.5574
				YPRP INDEES 19.0000
				ZPRP INDEES 19.1875
				SCALE SCALE .0405

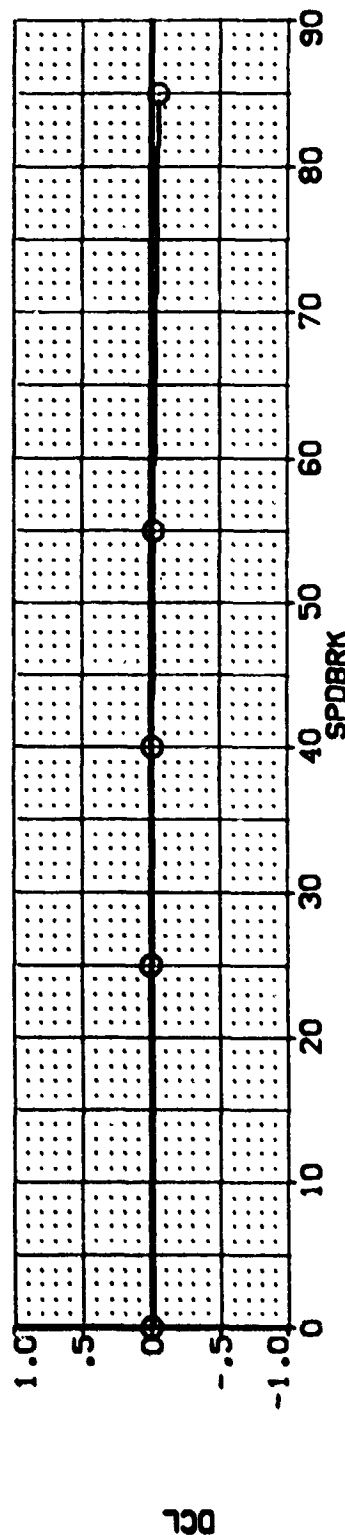
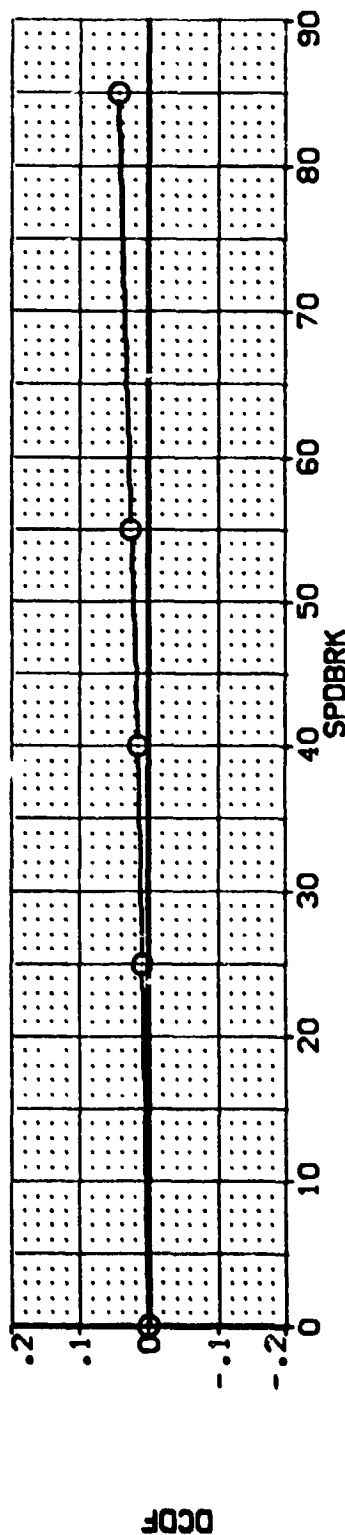
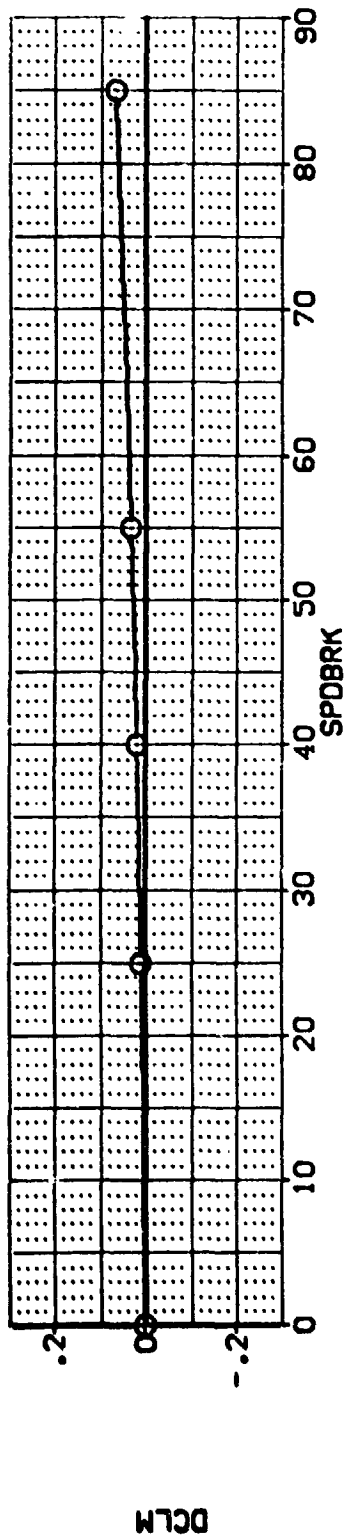


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(GDZ228)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	4.000	SPORBK	000000	SPORBK	19.2739
WACH	.000	DELVEN	.000	DELVEN	15.2258
BDLAP	-12.000	ATLORN	.000	ATLORN	37.9359
BLDOR	.000	BETA	.000	BETA	43.5674
BLRNO	.000			TRAP	.0000
				ZTRAP	15.1875
				SCALE	.0405

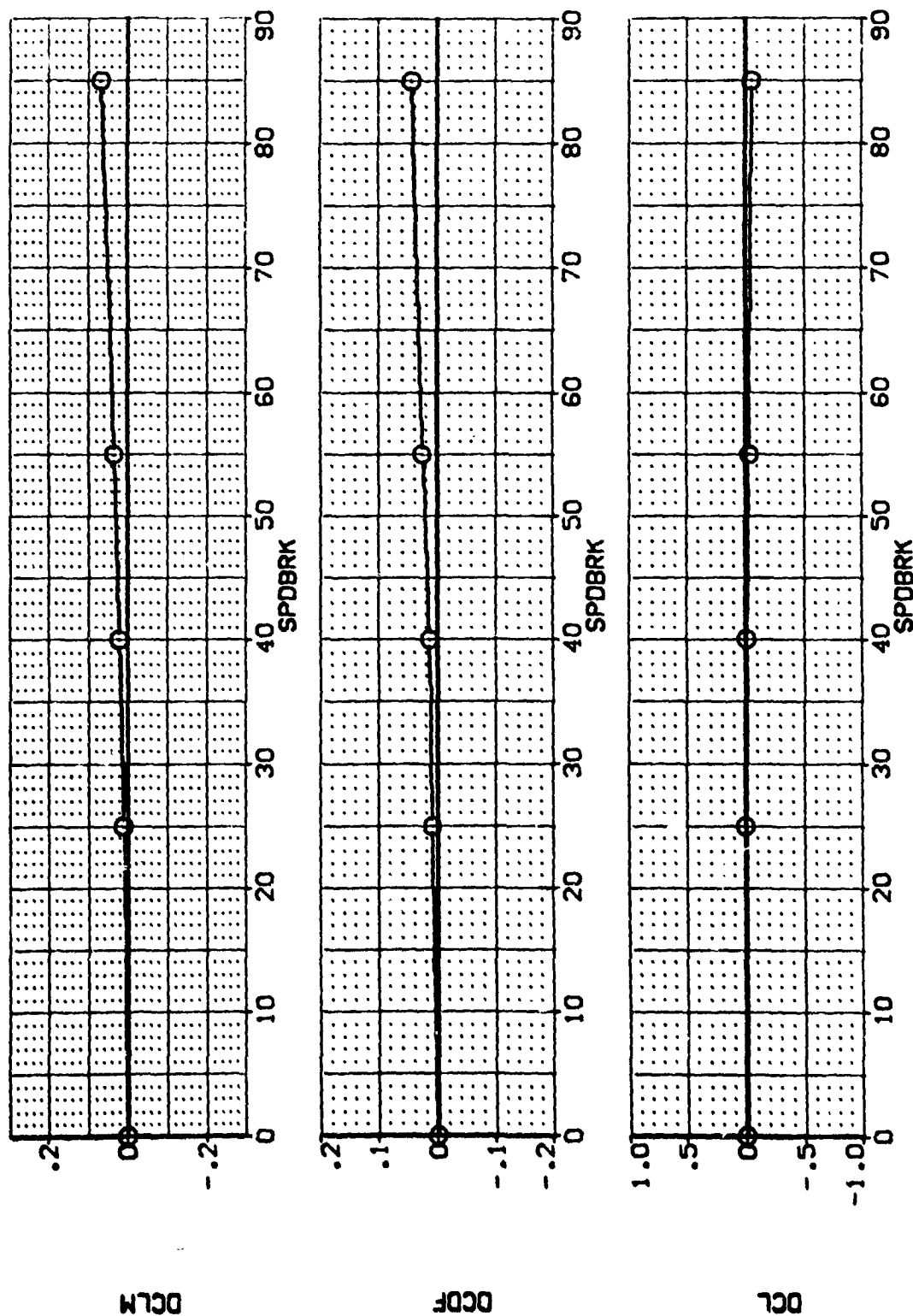


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(G02228)

0A628 B26C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION		
SYMBOL	ALPHA	MACH	DELTA	SPDRK	SPDRK	
0	0.000	.200	.000	G02152	4.4118	
		-12.000	.000	G02228	19.2259	
		AIRLON	.000	G02138	37.9359	
		BETA	.000	G02144	43.5974	
			.000	YARP	.0000	
			.000	ZARP	15.1875	
				SCALE	.0405	
					SCALE	

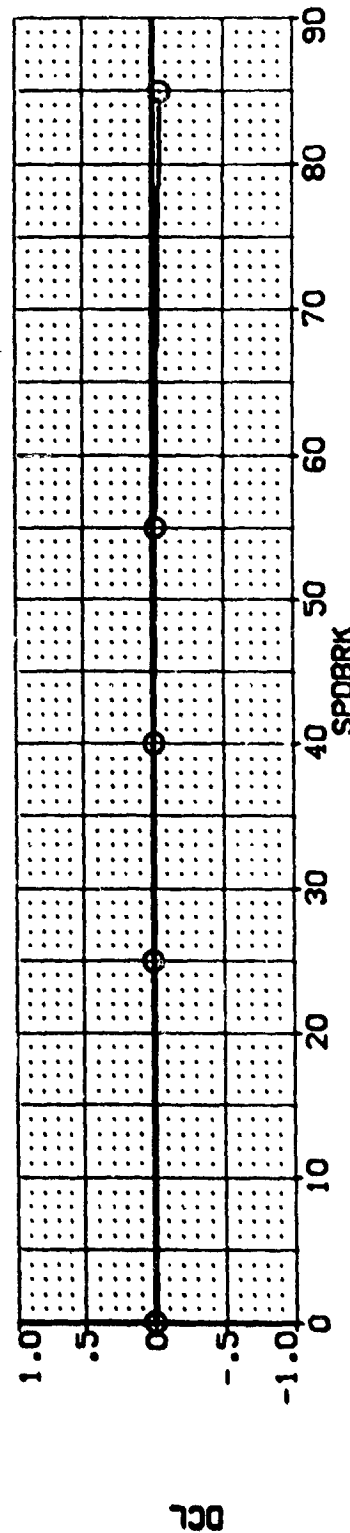
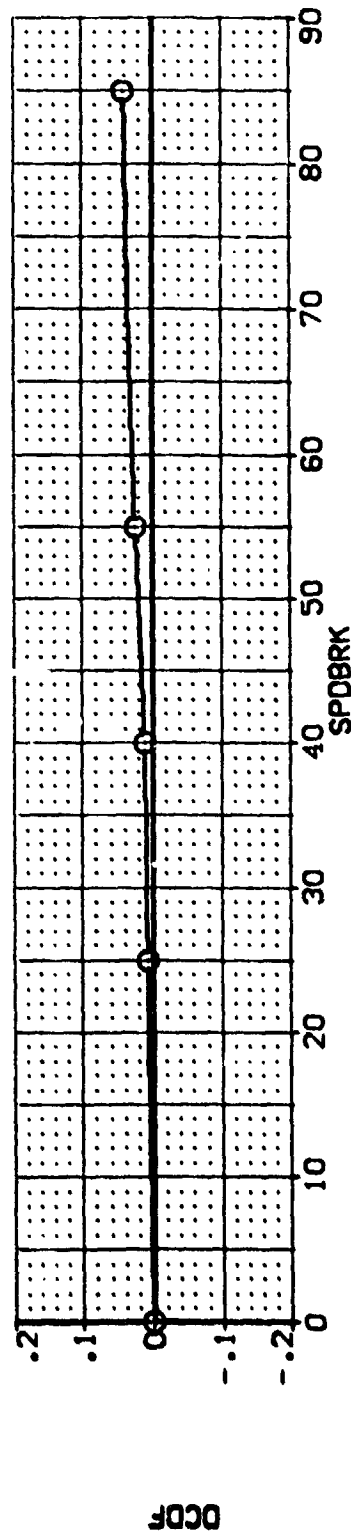
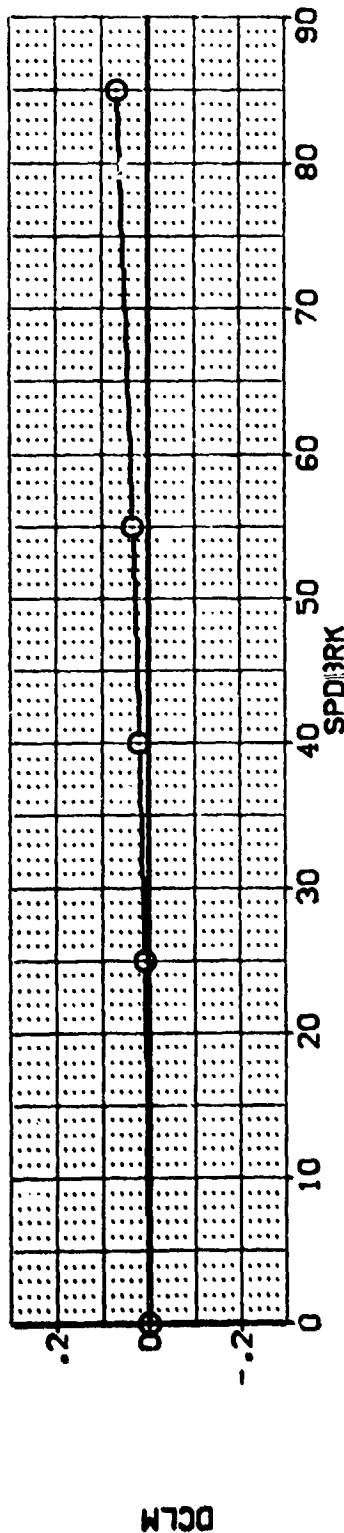


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 B26C9 M7F8 W:16E28V8R5X9 (GDZ228)  
 SYMOL ALPHA 0.000 MACH 0.000  
 PARAMETRIC VALUES  
 DELVON .000  
 AILRON -12.000  
 BETA .000  
 RUDDER .000  
 RUJRAO .000  
 DATA SOURCE  
 DATASET .000  
 SPDBRK .000  
 DATASET 602152  
 SPDBRK 25.000  
 DATASET 602336  
 SPDBRK 55.000  
 REFERENCE INFORMATION  
 4.4118 SQ.FT.  
 19.2259 INCHES  
 37.9359 INCHES  
 43.5974 INCHES  
 .0000 INCHES  
 15.1875 INCHES  
 .0405 SCALE

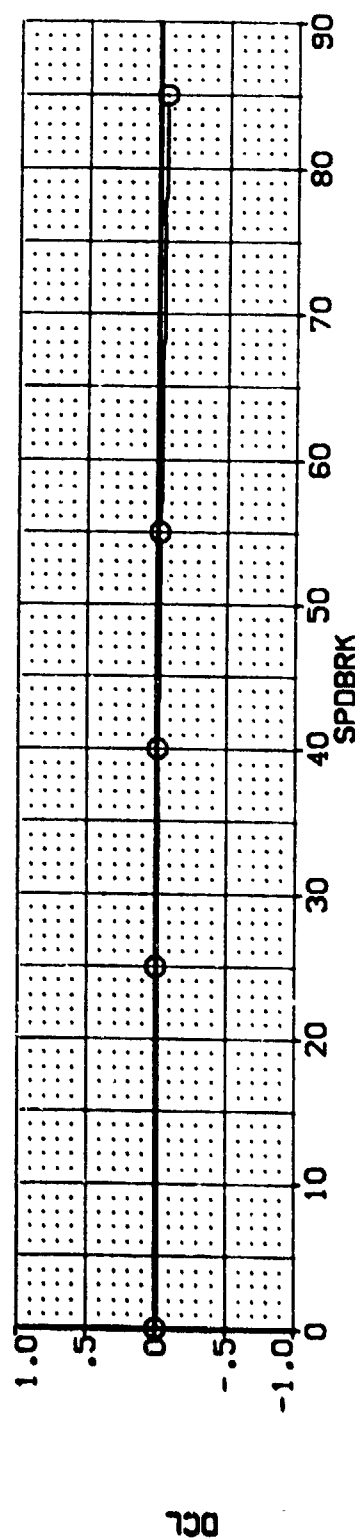
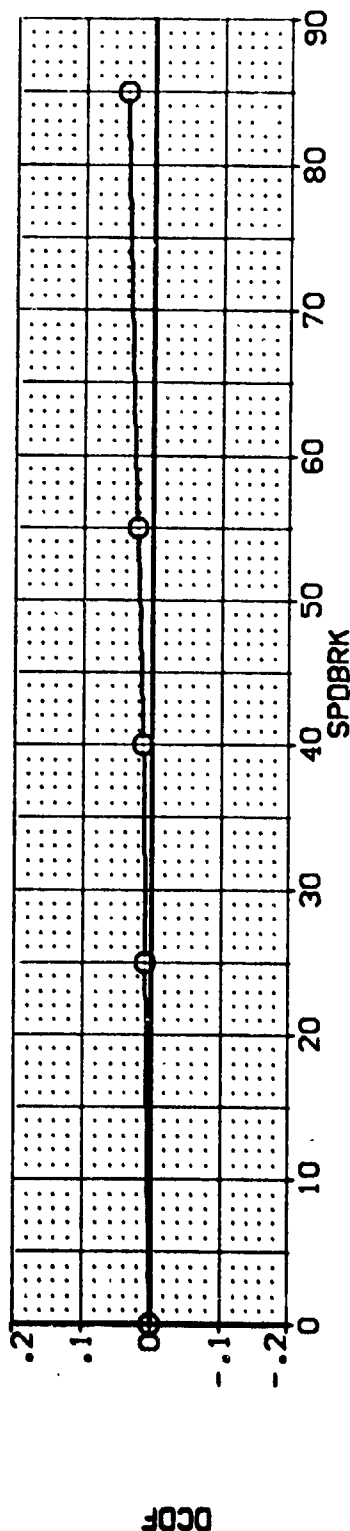
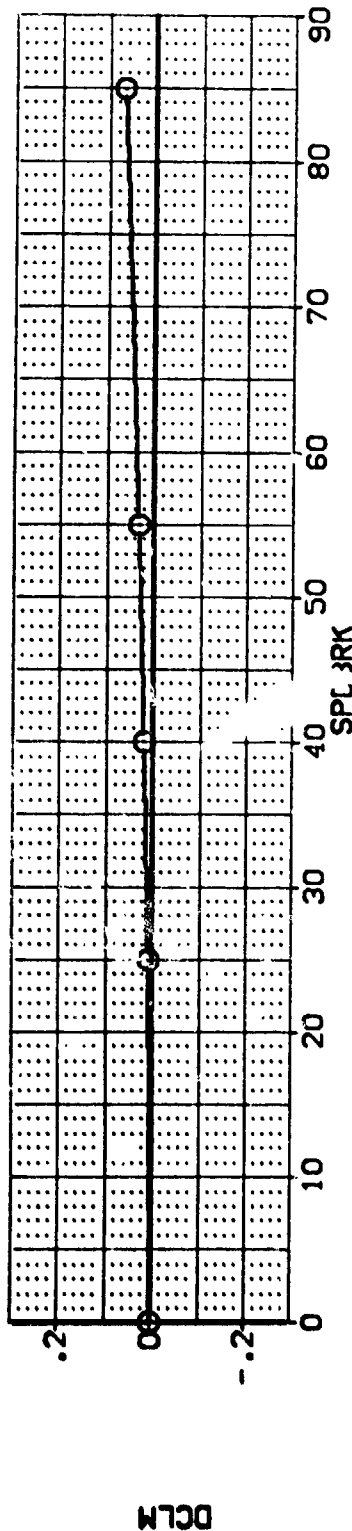


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



(G0Z228)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
	ALPHA	MACH	DELTA	DELTA	SPDRK	DATASET	SPDRK	SPDRK	SPDRK	SPDRK	SPDRK	SPDRK
O	10.000		.200	DELTA	.000	G0Z228	.000	G0Z152	25.000	4.4119	SOFT.	
			-12.000	AILRON	.000	G0Z138	40.000	G0Z336	55.000	19.2299	INCHES	
			.000	BETA	.000	G0Z144	65.000			37.9359	INCHES	
			.000							43.5974	INCHES	
										10.000	INCHES	
										15.1879	INCHES	
										.0405	SCALE	

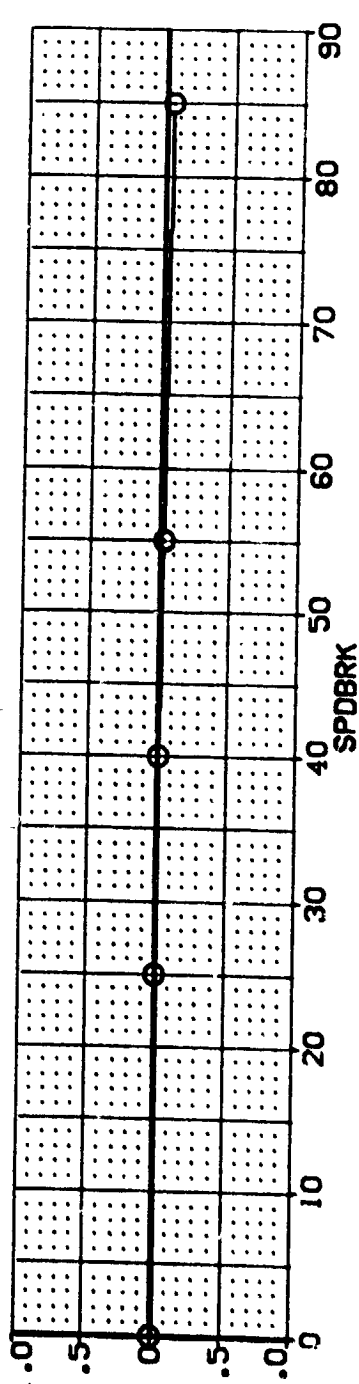
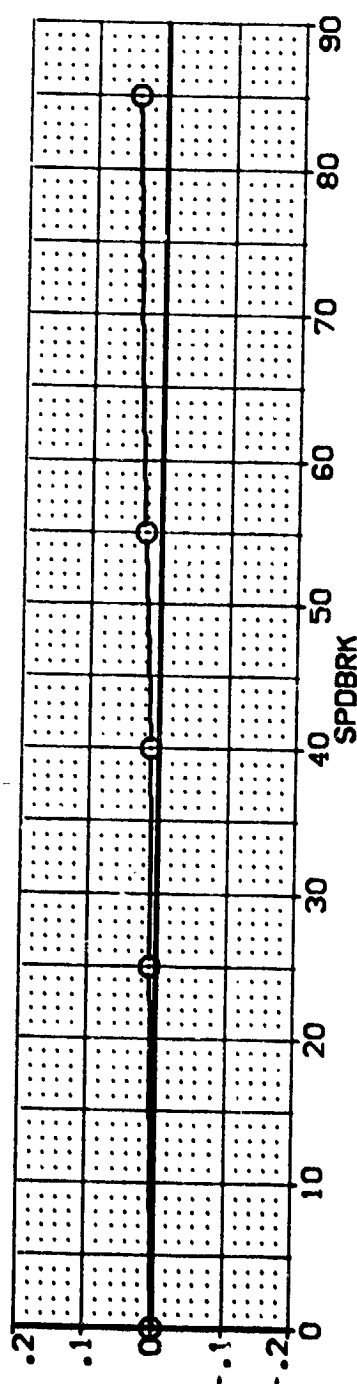
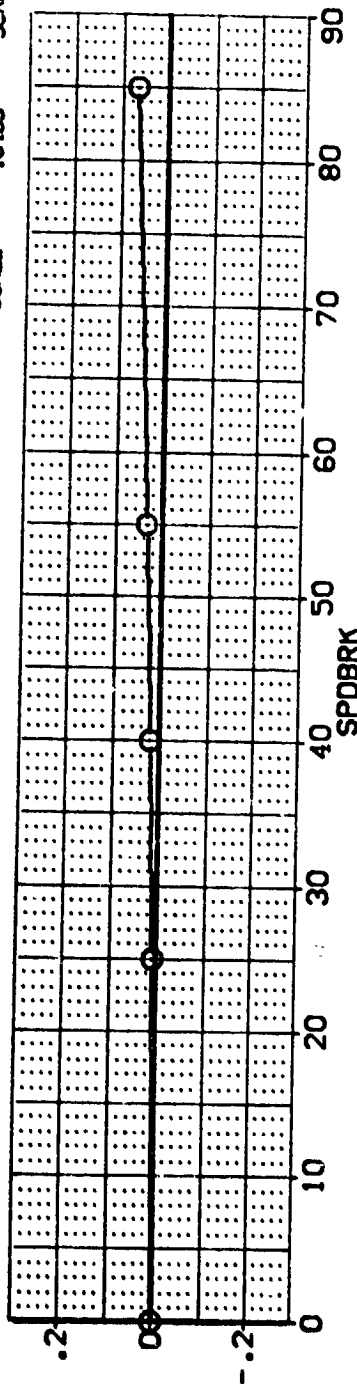


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(G0Z228)

0A628 B26C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
SYMBOL	ALPHA	MACI	DELTA	SPDRK	SREF
0	12.000	0.000	.200	25.000	4.4119
		.000	.000	55.000	19.2299
		.000	.000		37.9359
		.000	.000		43.5574
					10.000
					15.1875
					.0405
					SCALE

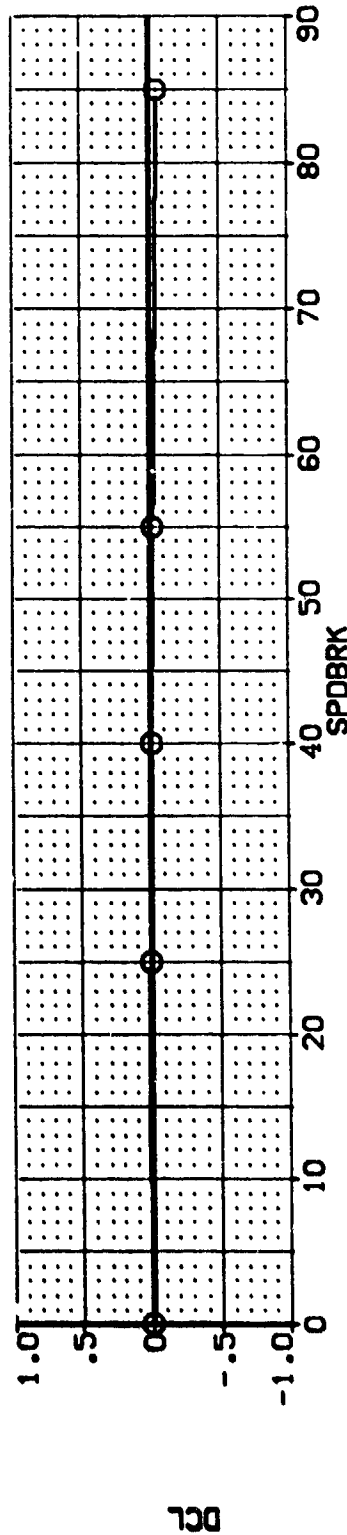
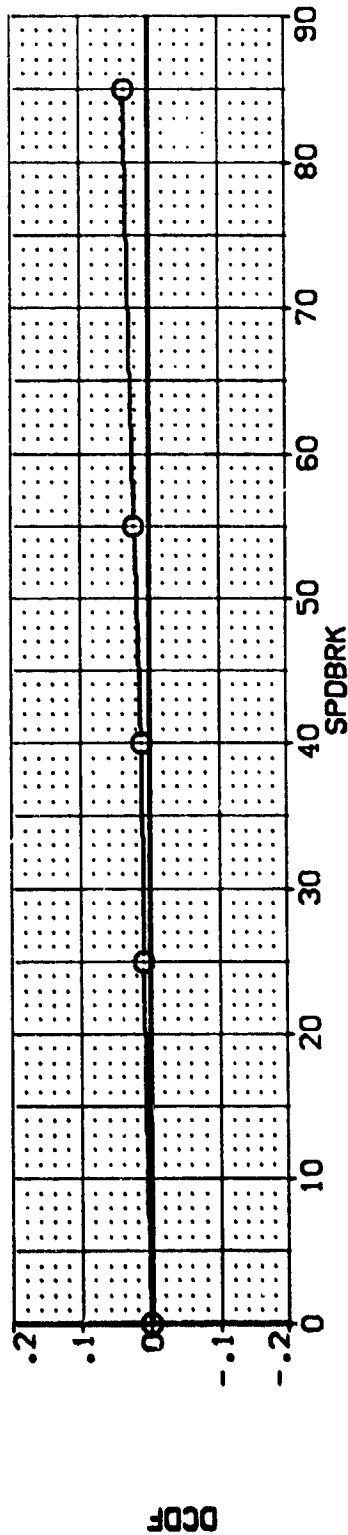
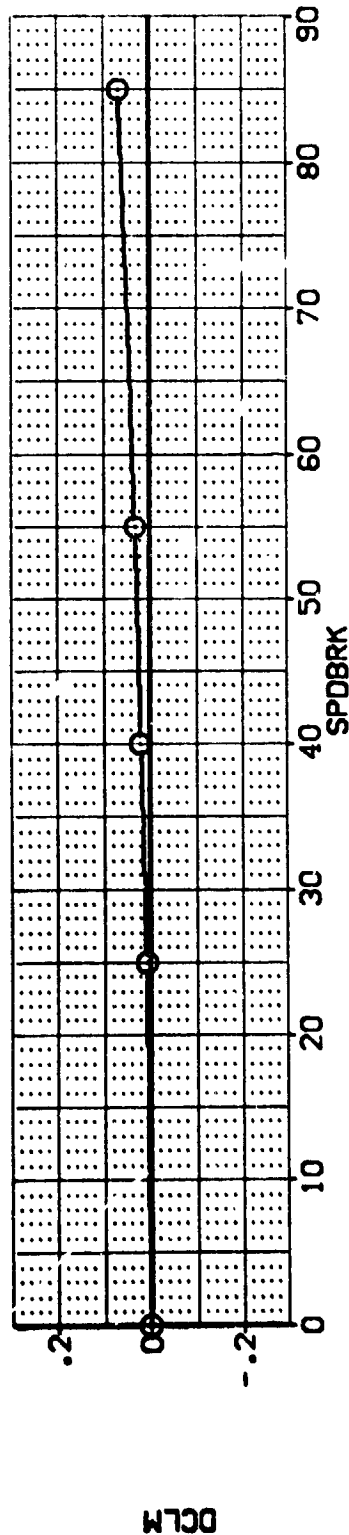


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(GDZ228)

Speed 14.000  
Alpha

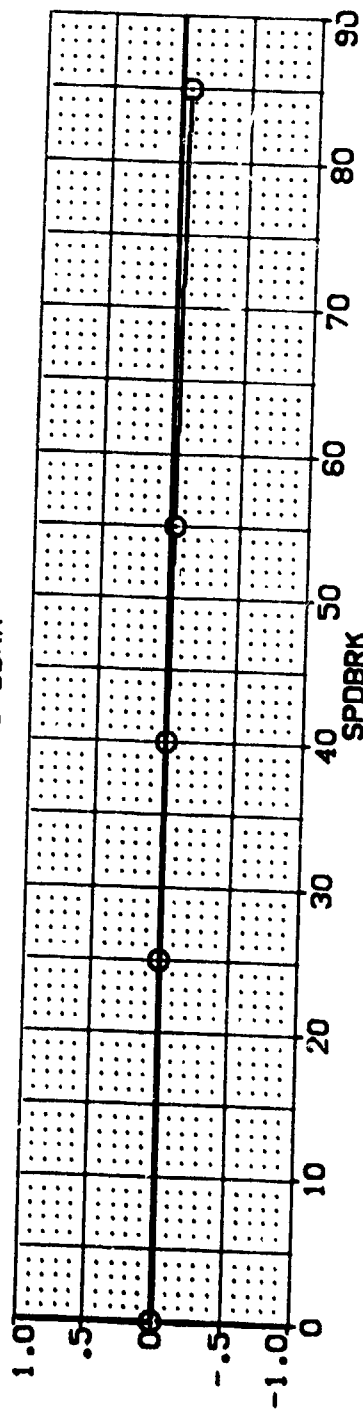
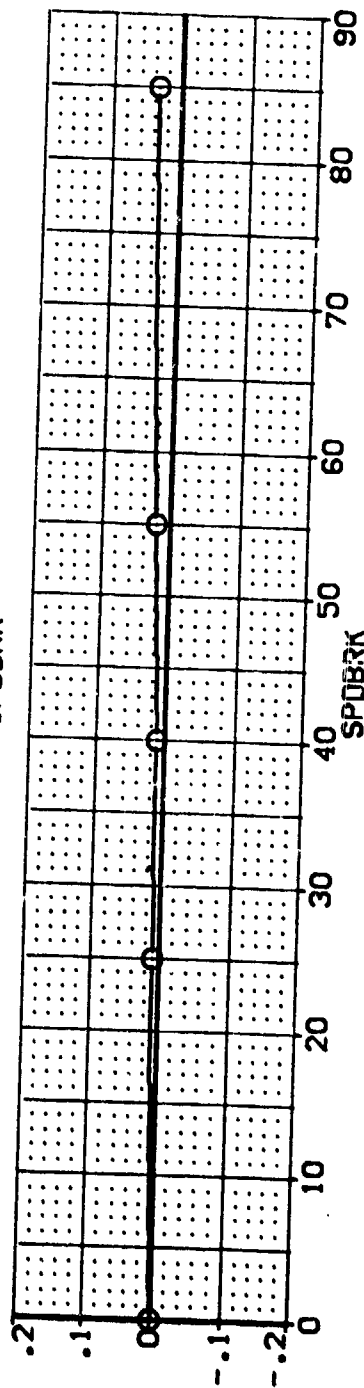
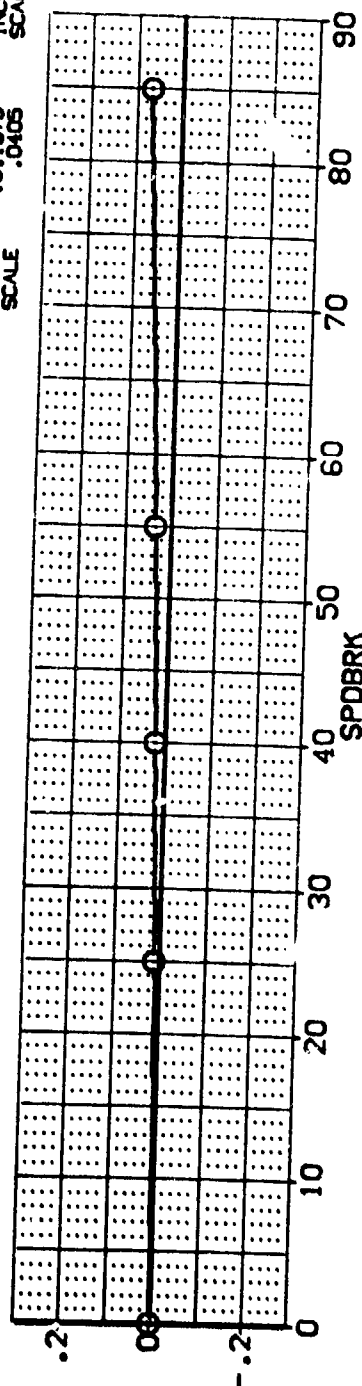
ALPHA	14.000				
		HIGH			
		BDLAP			
		FLUDR			
		FLUPAD			
					PARAMETRIC VALUES
					DEL VON
					ALIRON
					BETA
					.000
					.000
					-12.000
					.200

DATA SOURCE  
SPDPRK  
1,000  
40,000  
85,000

**DATASET**  
**GOZ152**  
**GOZ336**

SCALE  
ZMRP  
YMRP  
XMRP  
BREF  
LREF  
SREF

REFERENCE INFORMATION



**FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0**

0A628 B26C9 M7F8 W116E28V8R5X9 (GDZ228)  
 SYMBL ALPHA 16.000  
 PARAMETRIC VALUES  
 MACH .200 DELVON  
 BDFLAP -12.000 AILRON  
 RUDDER .000 BETA  
 RLURAD .000  
 DATA SOURCE  
 DATASET .000 DATASET .000  
 SPDBRK .000 SPDBRK .000  
 .000 .000  
 40.000 65.000  
 REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2288 INCHES  
 BREF 37.9339 INCHES  
 XMRP 43.5574 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

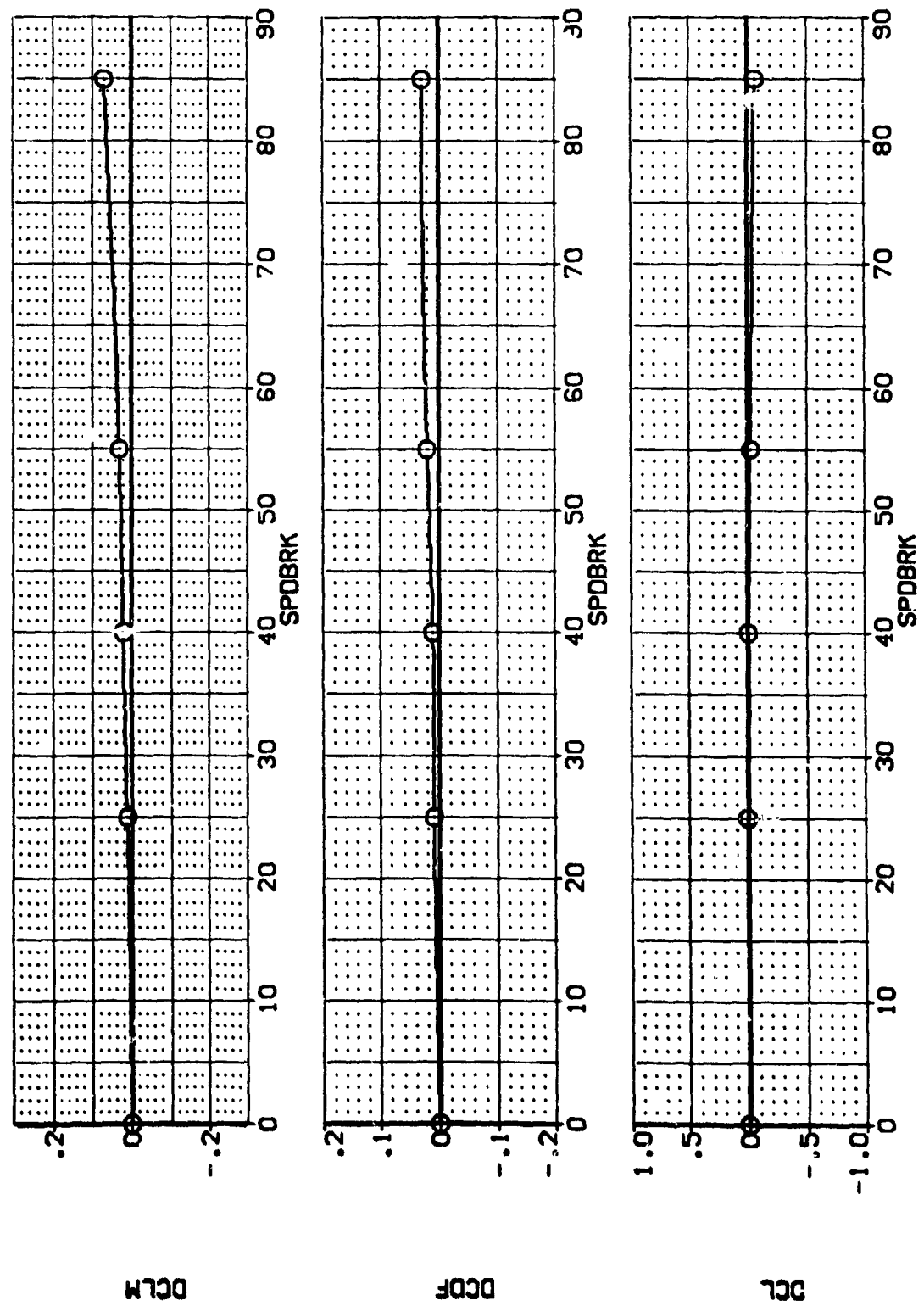


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	DATASET	SPDBRK	REFERENCE INFORMATION
0	18.000	MACH .200 DELTAON -12.000 AILRON BETA R-1RAD	.000 .000 .000 40.000 85.000	G0Z228 G0Z228 G0Z132 G0Z336	25.000 55.000	4.4118 19.2289 37.8559 43.5574 15.1875 15.1875 SCALE .0405

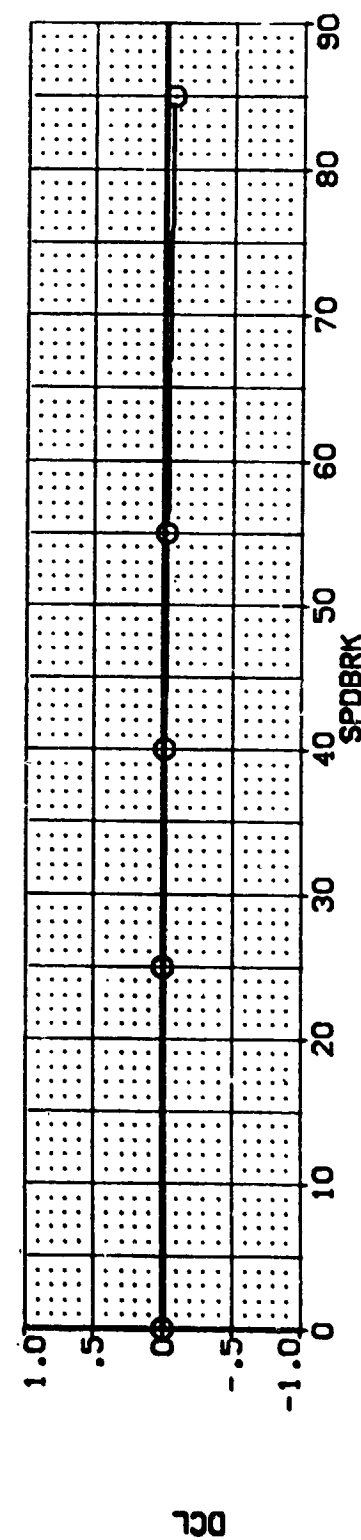
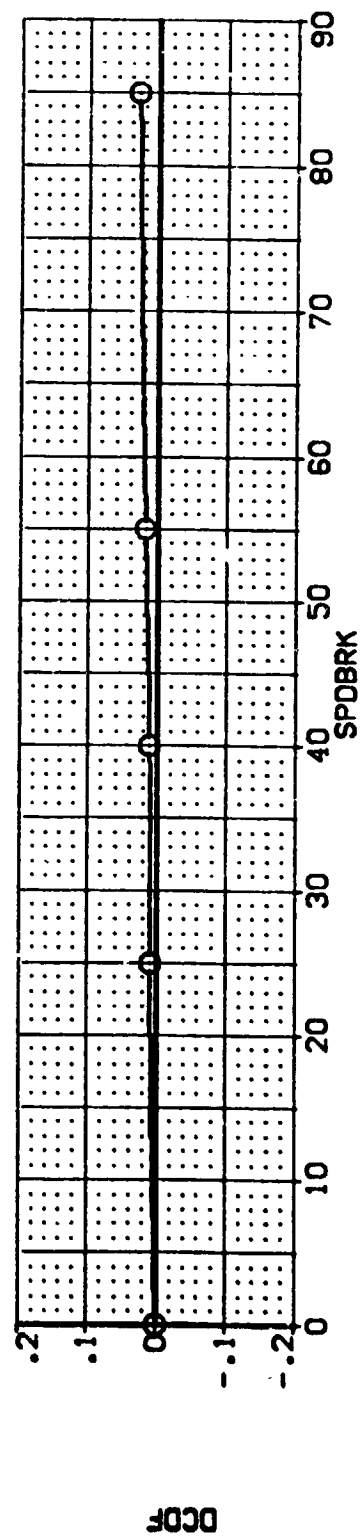
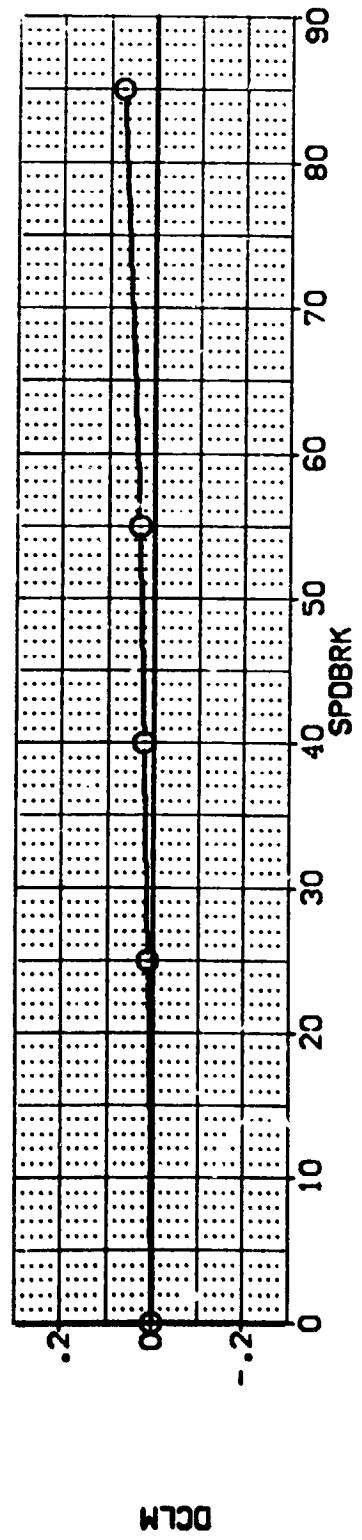


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 B26C9 M7F8 W116E28V8R5X9 (GDZ2228)  
 SYMBL ALPHA 20.000  
 0  
 PARAMETRIC VALUES  
 MAGH .200 DELVON  
 BDFLAP -12.000 AILVON  
 RUDDER .000 BETA  
 R-URAD .000  
 DATA SOURCE  
 SPDBRK .000 DATASET  
 SPDBRK 25.000  
 SPDBRK 55.000  
 REFERENCE INFORMATION  
 SPDBRK 4.4119 50.FT.  
 LREF 19.2259 INCHES  
 BREF 37.9359 INCHES  
 YMRP 43.5974 INCHES  
 ZMRP .0000 INCHES  
 SCALE 15.1875 INCHES  
 SCALE .0405

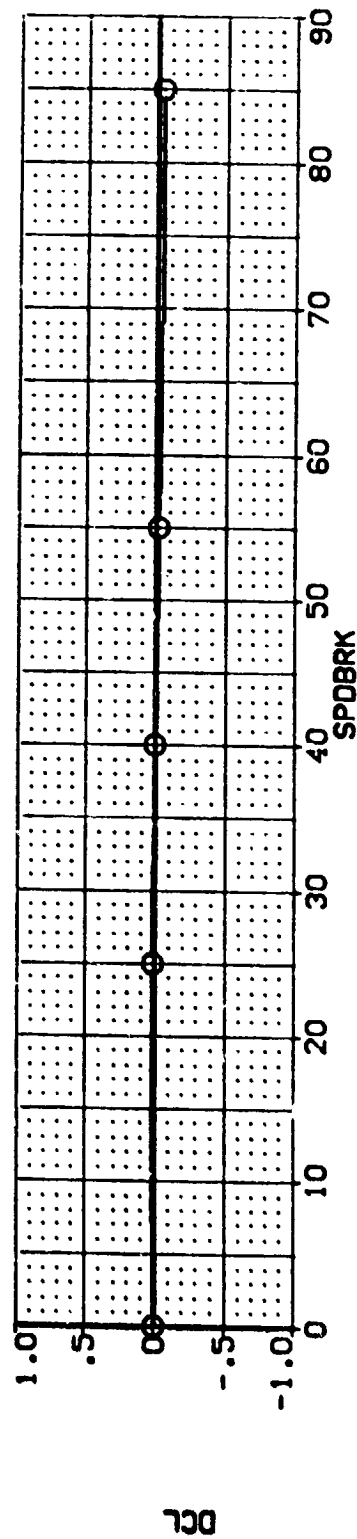
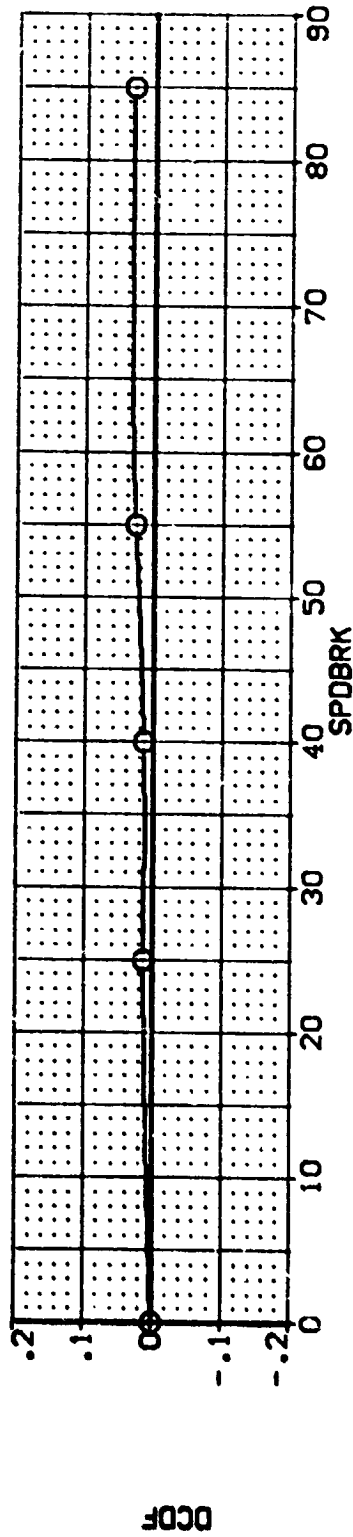
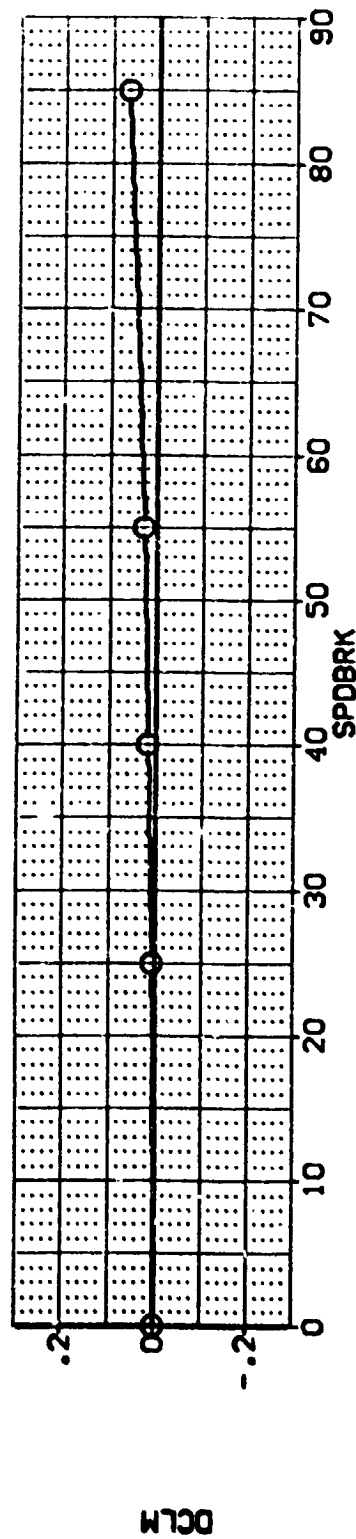


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(G0Z228)

0A628 B26C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
SPRCL	ALPHA	W001	.000	DATASET	SPDRK	SPRCL	SPRCL	SPRCL
0	22.000	DELTA	.000	G0Z228	.000	19.2259	19.2259	19.2259
		AILRON	.000	G0Z136	40.000	37.9358	37.9358	37.9358
		BETA	.000	G0Z144	65.000	43.5974	43.5974	43.5974
						15.1873	15.1873	15.1873
						.0405	.0405	.0405

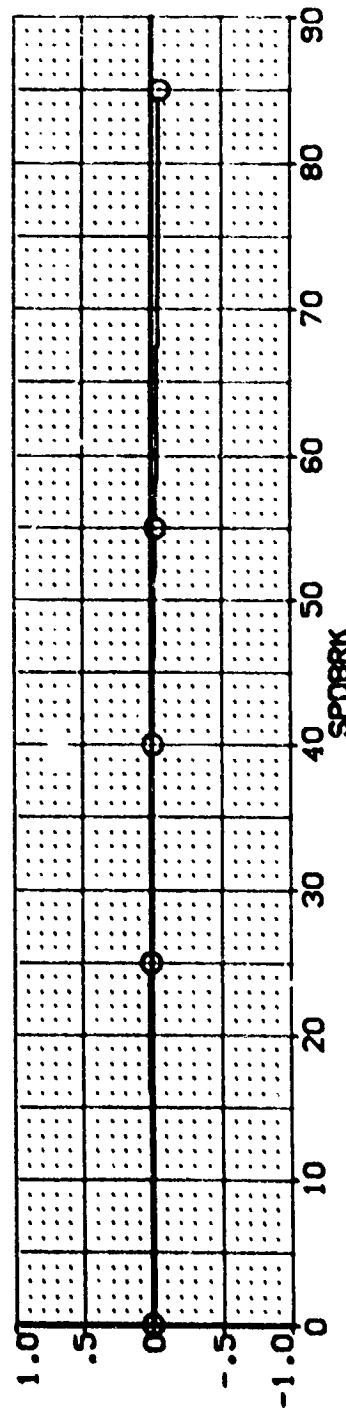
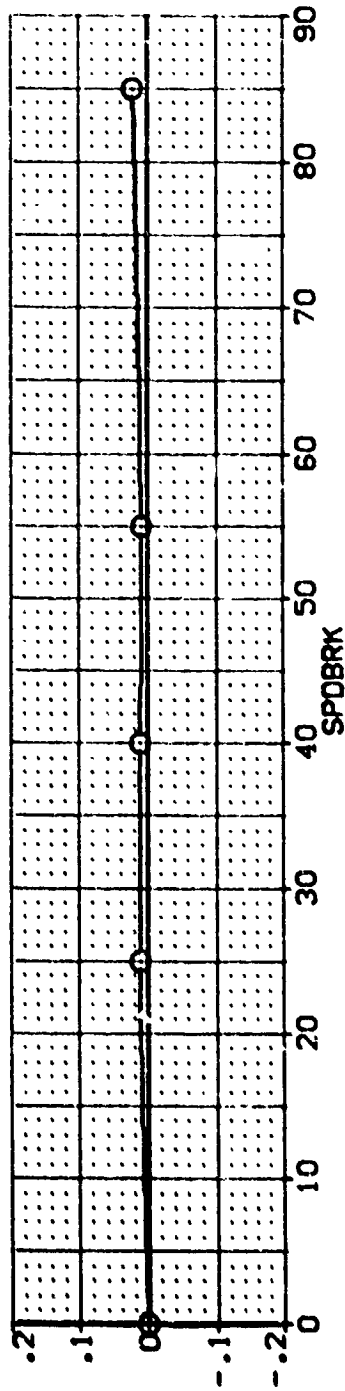
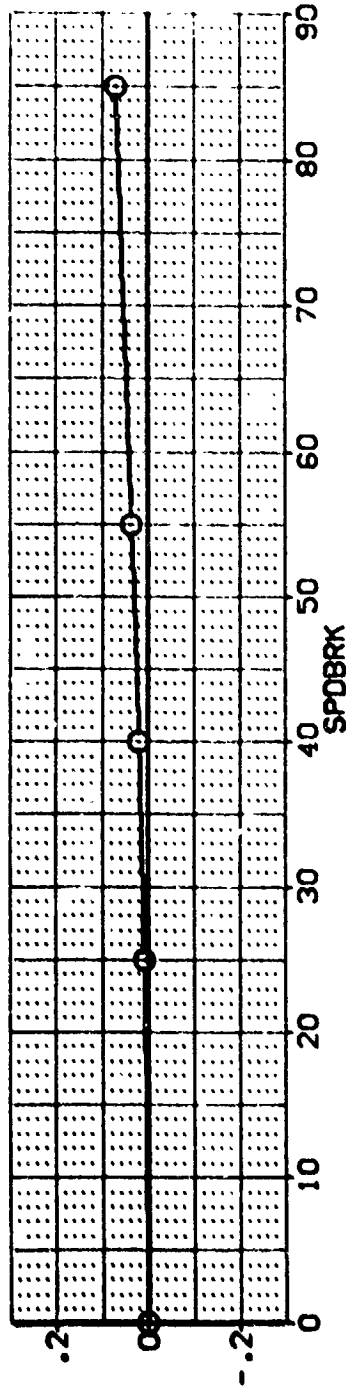


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0







(G0Z228)

0A628 B26C9 M7F8 W116E28V8RSX9

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION						
ALPHA	25.000	MACH	.200	DELTA	.000	SPDRK	25.000	REF	4.4119	50 FT.
BOFLAP	-12.000	ATLORN	.000	G0Z228	.000	SPDRK	25.000	REF	19.2299	INCHES
RUDDER	.000	BETA	.000	G0Z138	40.000	SPDRK	55.000	REF	37.9369	INCHES
RLRAD	.000			G0Z144	85.000	SPDRK		REF	43.5974	INCHES
						SPDRK		REF	15.1875	INCHES
						SPDRK		REF	15.1875	SCALE

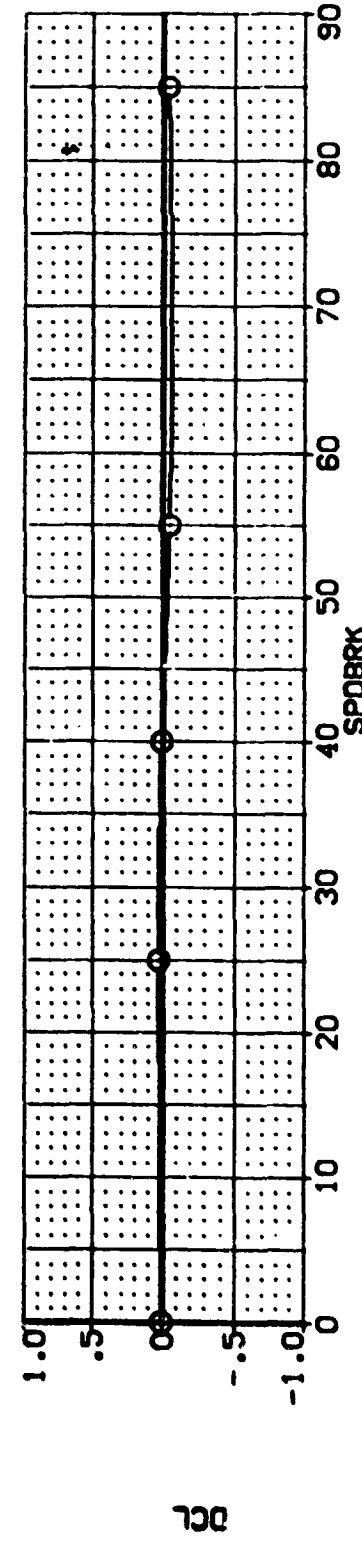
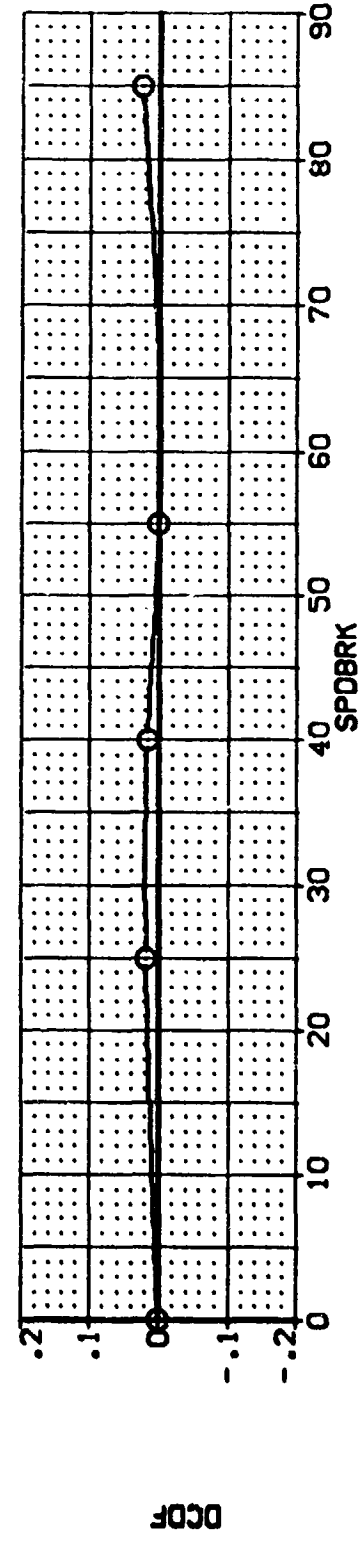
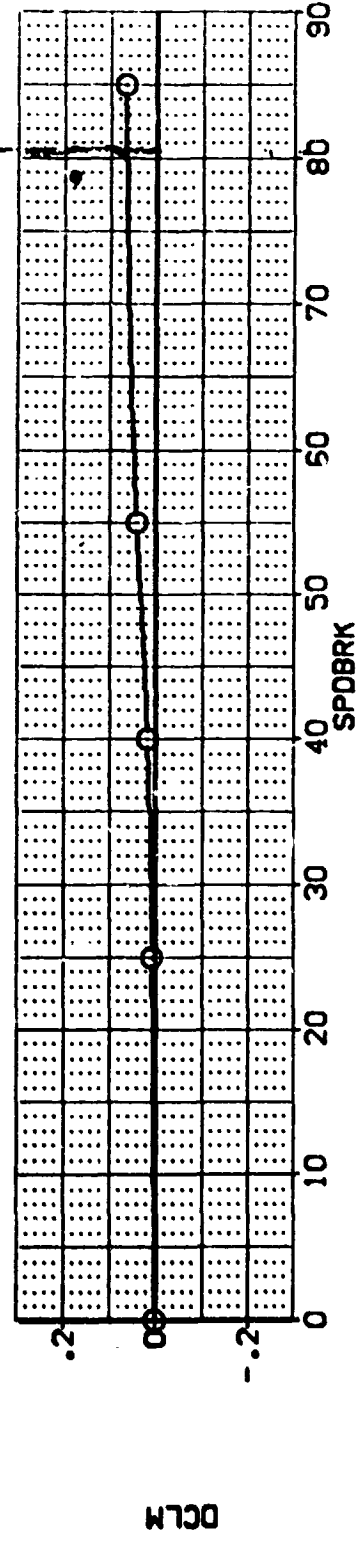


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 B26C9 M7F8 W116E28V8R3X9 (G0Z228)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	SPDBRK	REFERENCE INFORMATION
O	28.000						
		EDFLAP	.200 DELVON	.000 DATASET	G0Z152	25.000	SO.FT. 4.4119
		RUDDER	-12.000 AILRON	.000 G0Z228	G0Z136	55.000	INCHES 19.2289
		RUJRAD	.000 BETA	.000 G0Z138			INCHES 37.9359
				.000 G0Z144			INCHES 43.5574
							INCHES .0000
							INCHES 15.1675
							SCALE .0405

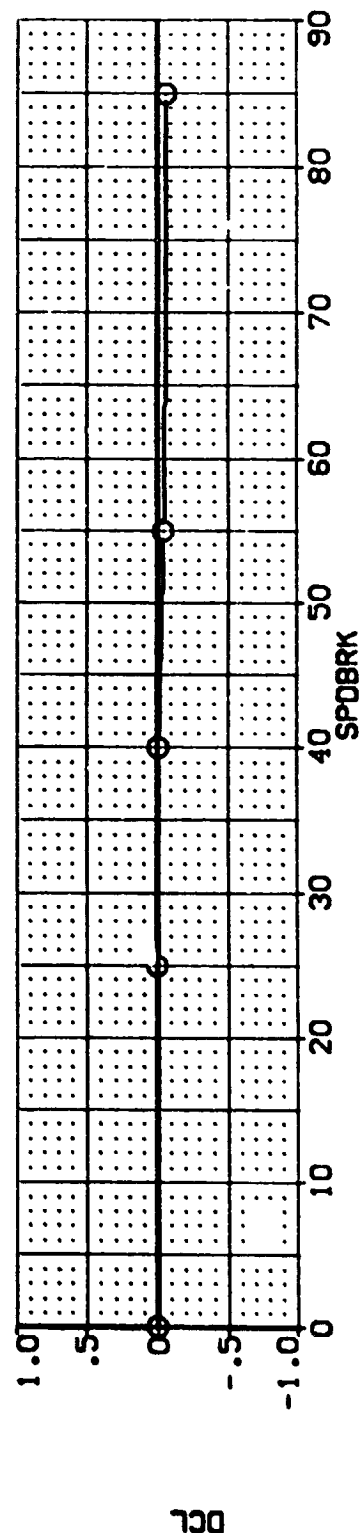
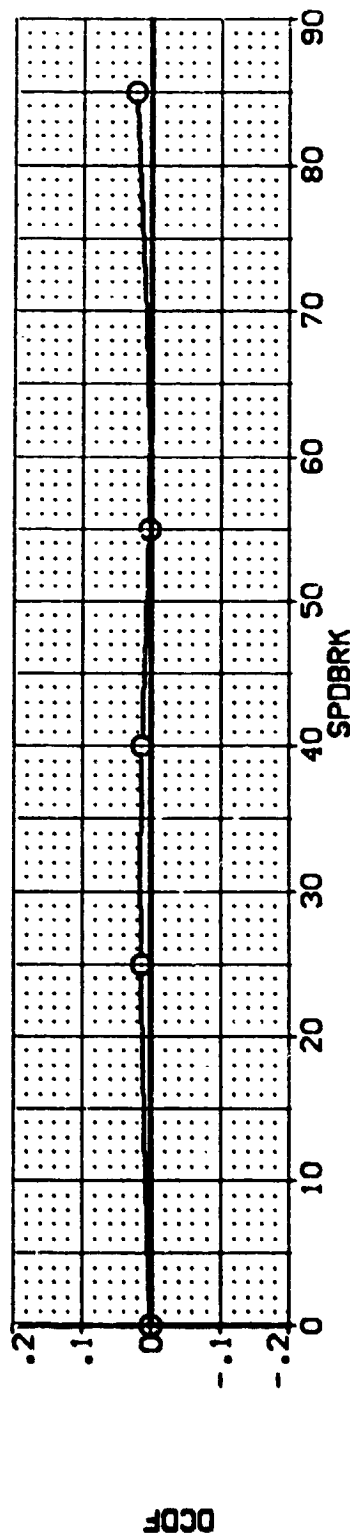
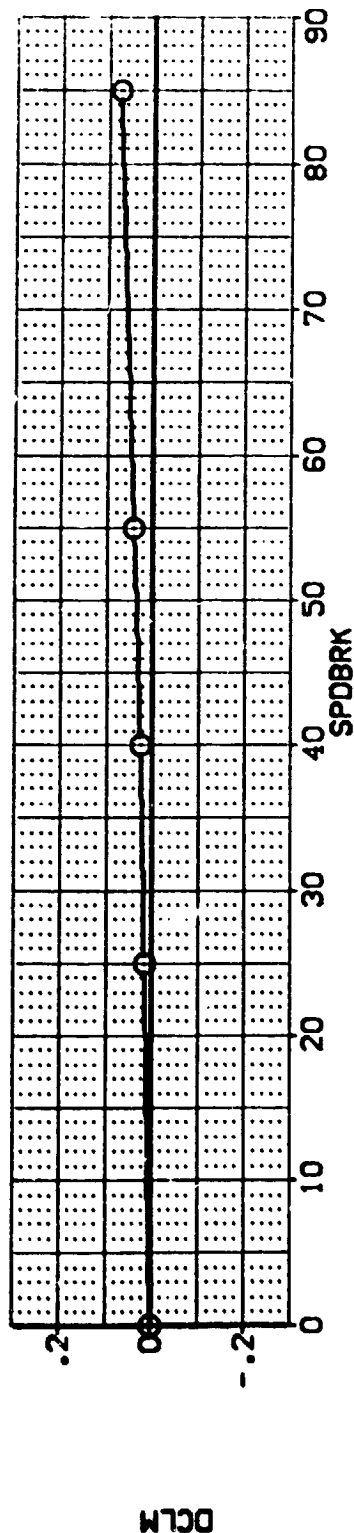


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

**(GDZ228)**

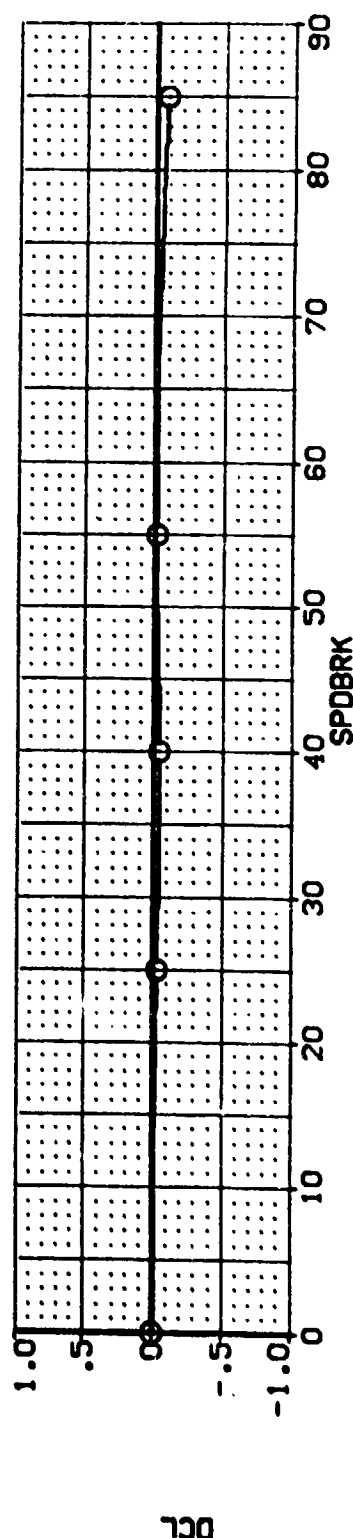
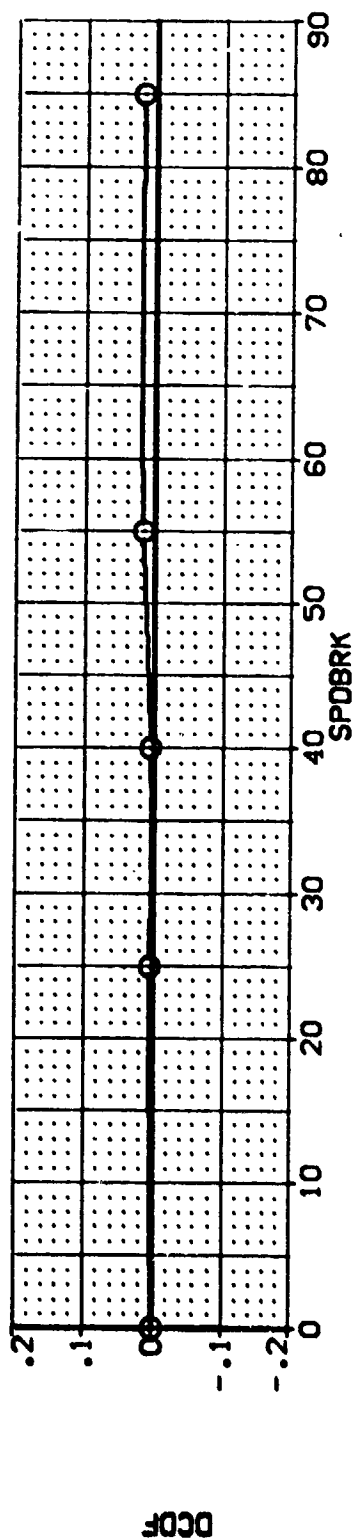
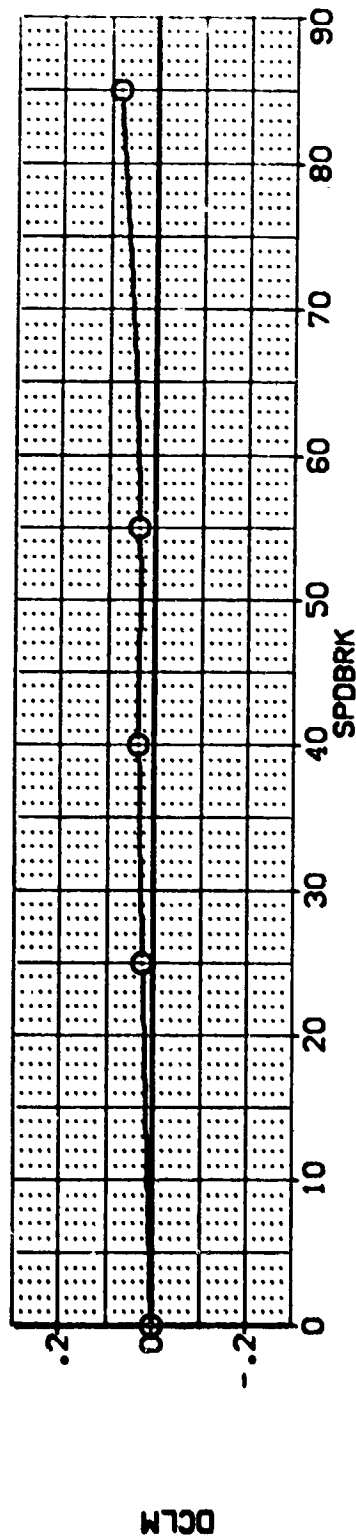
[illegible]

FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(GDZ228)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0	ALPHA	MACH	DELTA	SPDRK	SPDRK	SREF	SD.FT.
	-4.000	.200	DELTA	.000	GDZ228	19.2299	INCHES
		-12.000	ALPHA	.000	GDZ228	37.9359	INCHES
		.000	BETA	40.000	GDZ336	43.5574	INCHES
		.000		65.000		15.1875	INCHES
						.0405	SCALE

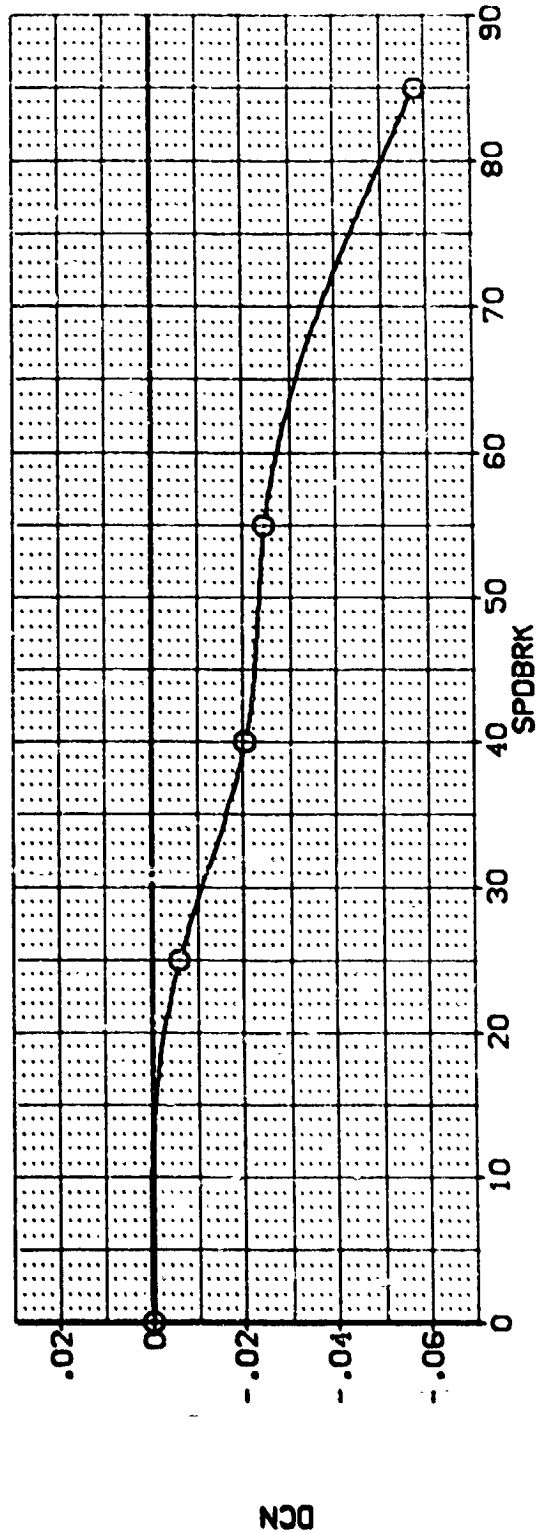
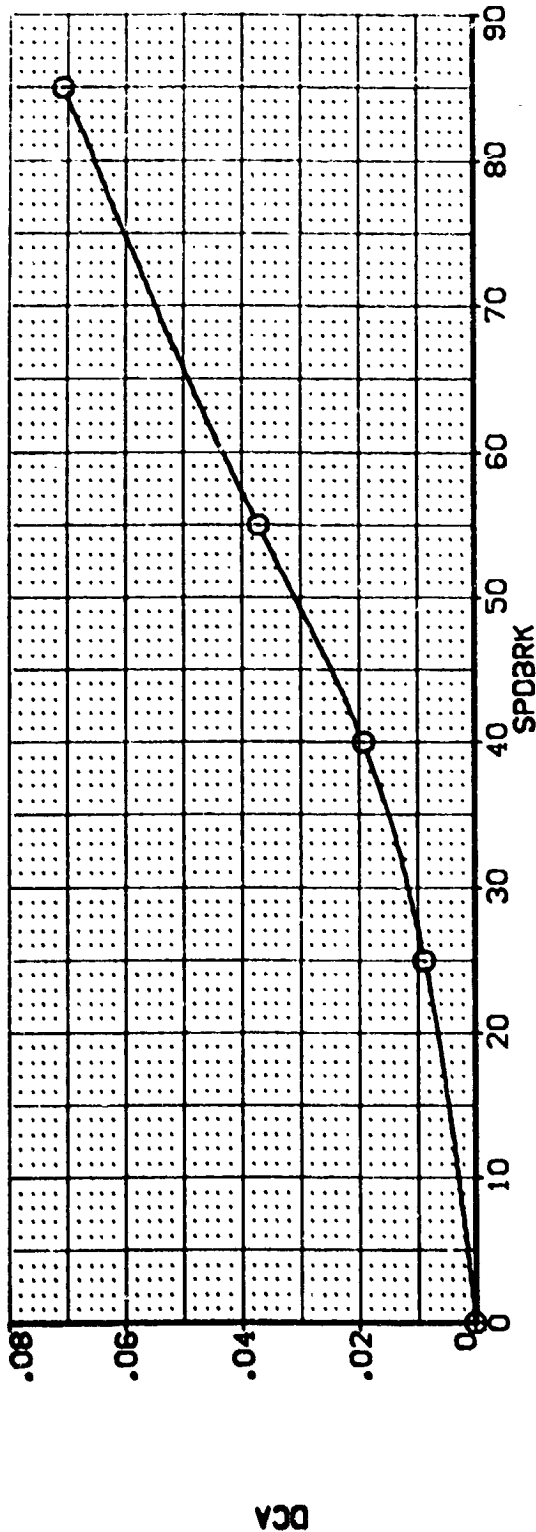


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(GDZ228)

0A628 326C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	SPDRBK	DATA SET	SPDRBK	REFERENCE INFORMATION
O	-2.000	BDFLAP	.200 DELVEN	.000 DATASET	.000	.000 GDZ228	25.000	50 FT.
		RUDDER	-12.000 AILRON	.000 GDZ228	40.000	.000 GDZ228	55.000	INCHES
		RLRAO	.000 BETA	.000 GDZ138	85.000	.000 GDZ144		INCHES
								INCHES
								SCALE
								SCALE

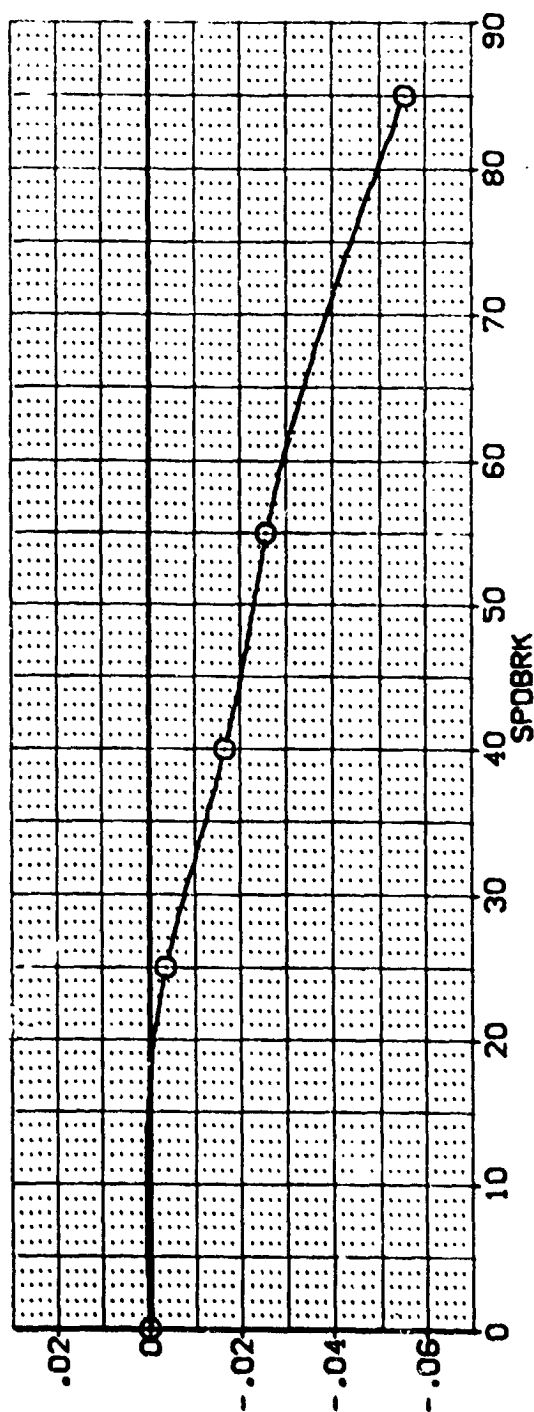
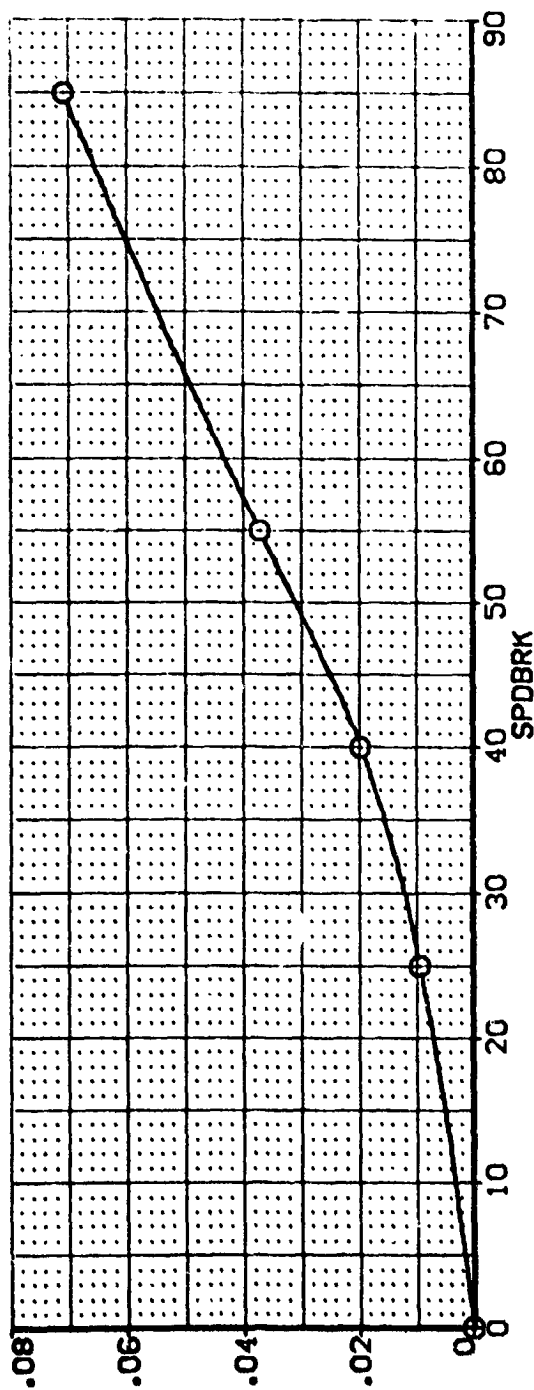


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATASET
0	-1.000	MACH	.200	DELVON
		BOFLAP	-12.000	ALTRON
		FLOOR	.000	BETA
		PS-LRAG	.000	
				GOZZ28
				GOZ138
				GOZ144

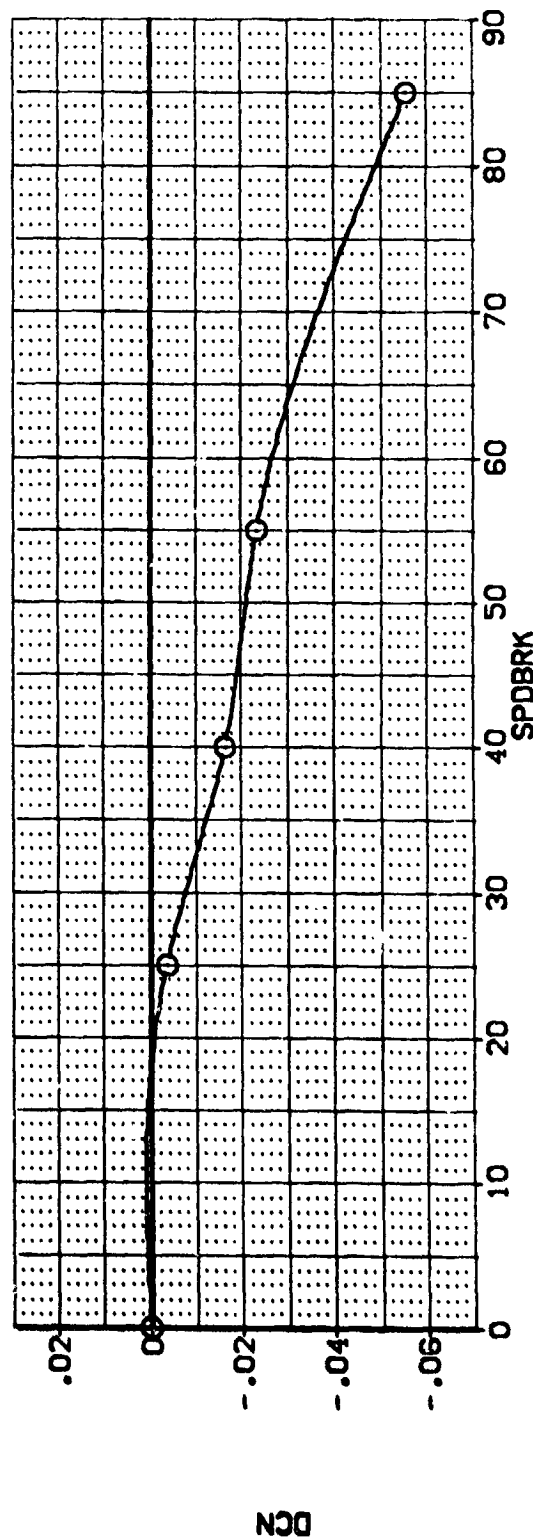


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



(G02228)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	.000	.200	DELTA	SPOBRK	SO, FT.
		-12.000	AILRON	.000	INC-ES
		.000	BETA	40.000	INC-ES
		.000		85.000	INC-ES
					INC-ES
					SCALE
					4.4119
					19.2299
					37.9359
					43.5974
					15.1875
					.0405

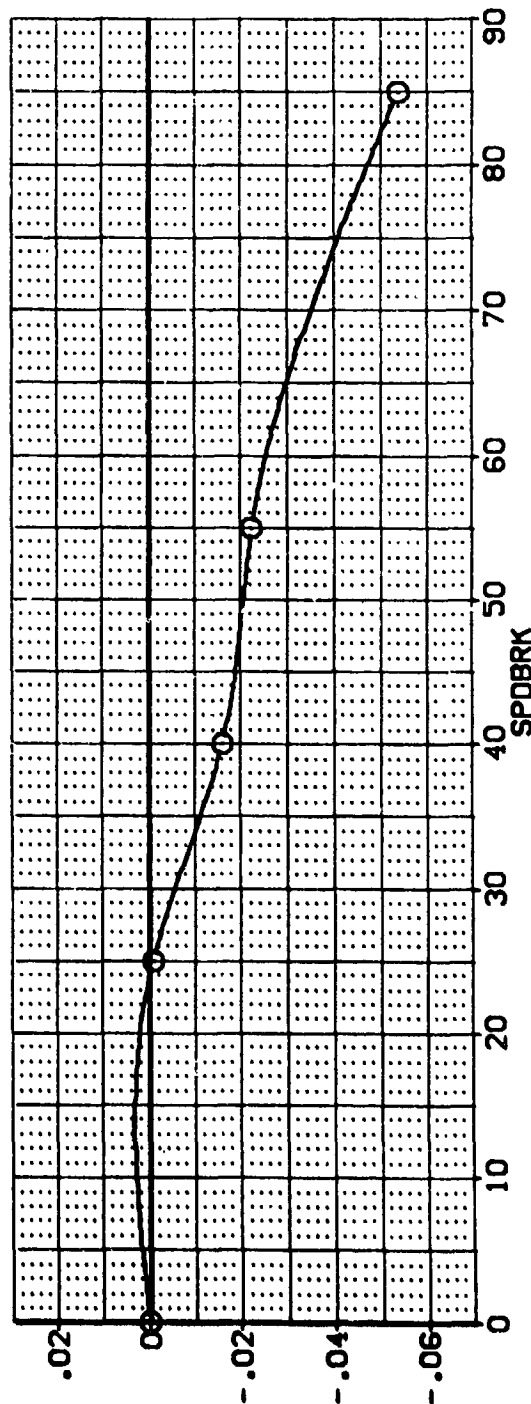
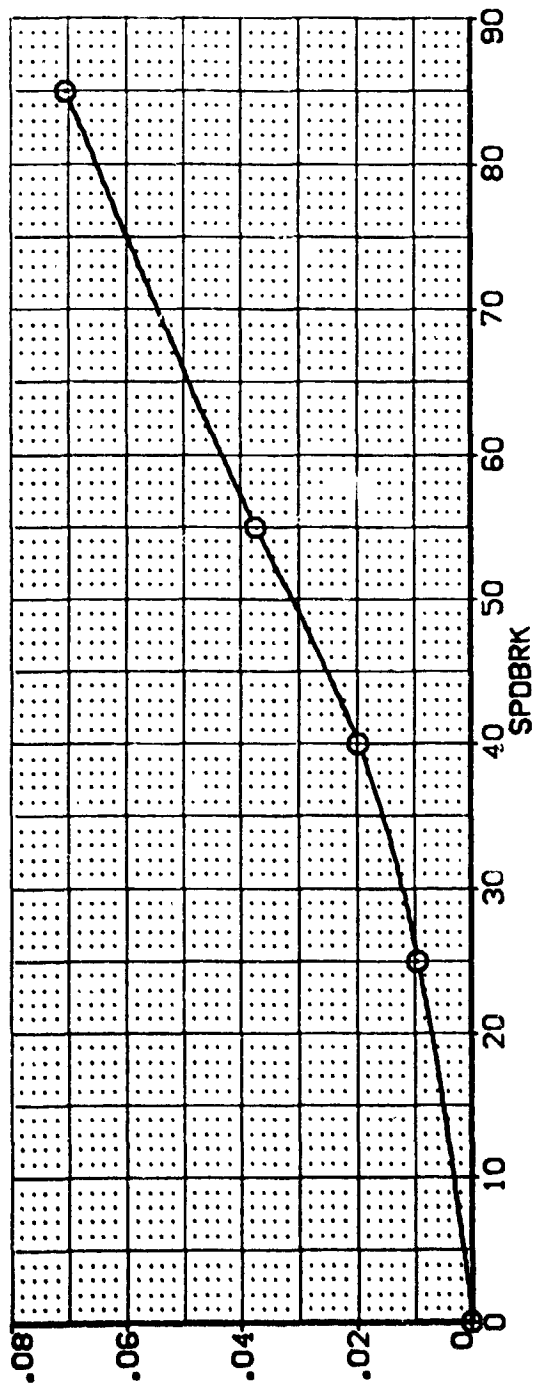


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(GDZ228)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
		HACH	DELTA	DELTA	SPDRK	DATASET	SPDRK	SREF	SO.FT.	INCHES
0	1.000	WACH	.200	DELTA	.000	DATASET	SPDRK	SREF	SO.FT.	INCHES
		DELTA	-12.000	DELTA	.000	GDZ228	25.000	REF	19.2259	INCHES
		RUDDER	.000	BETA	40.000	GDZ305	55.000	REF	37.9359	INCHES
		RU-LRAD	.000		65.000			REF	43.5974	INCHES
								REF	15.1875	INCHES
								SCALE	.0405	SCALE

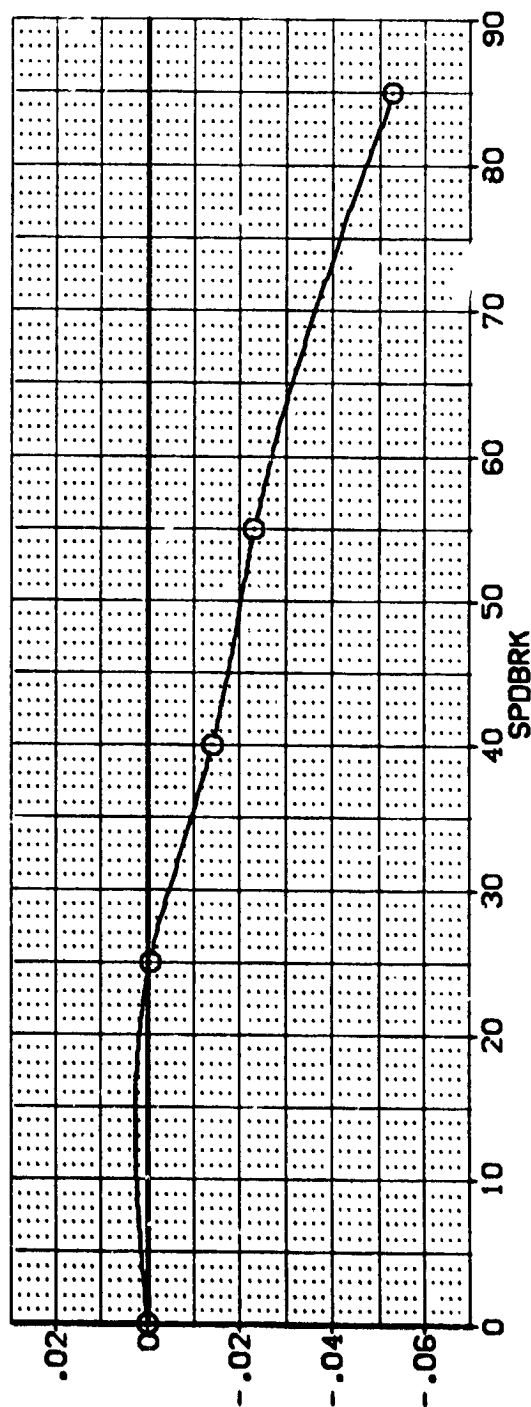
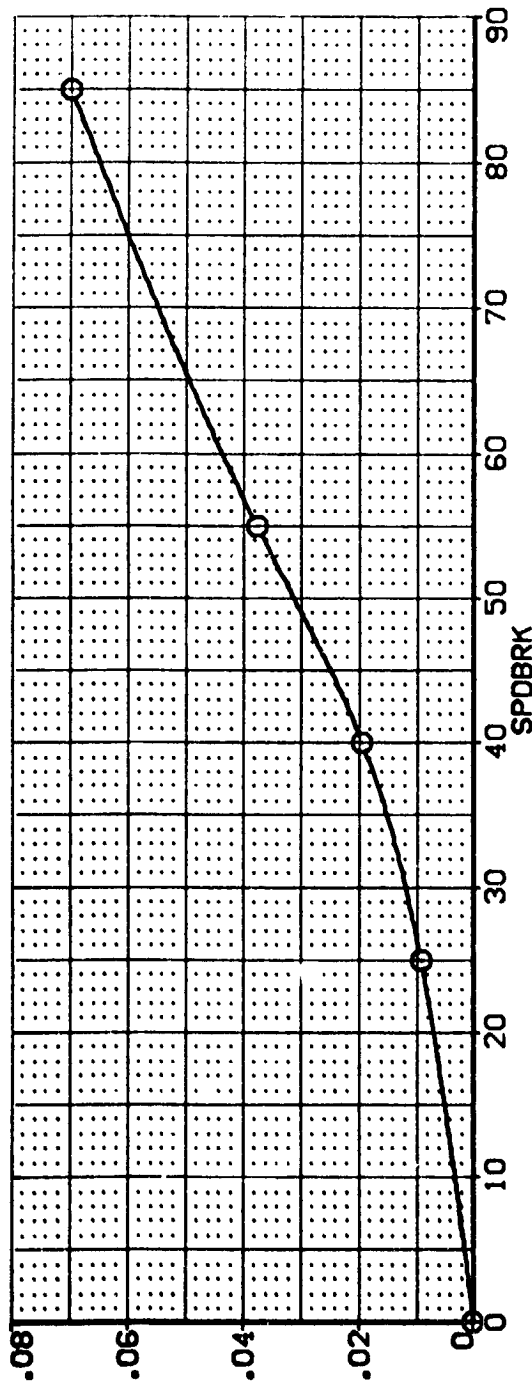


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

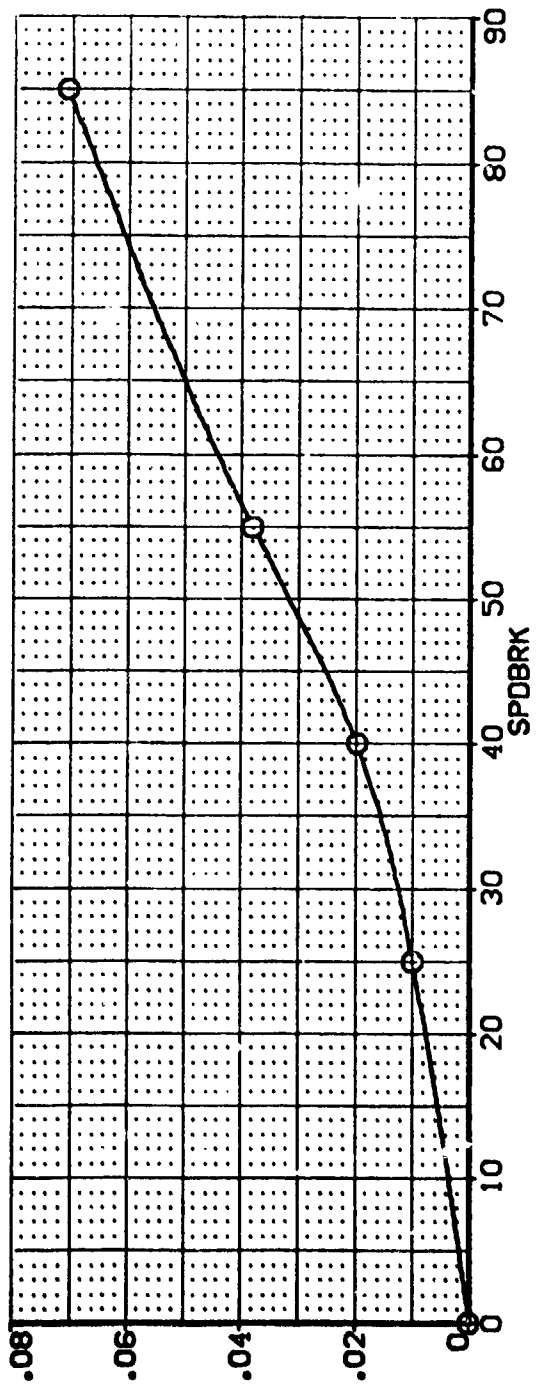


3

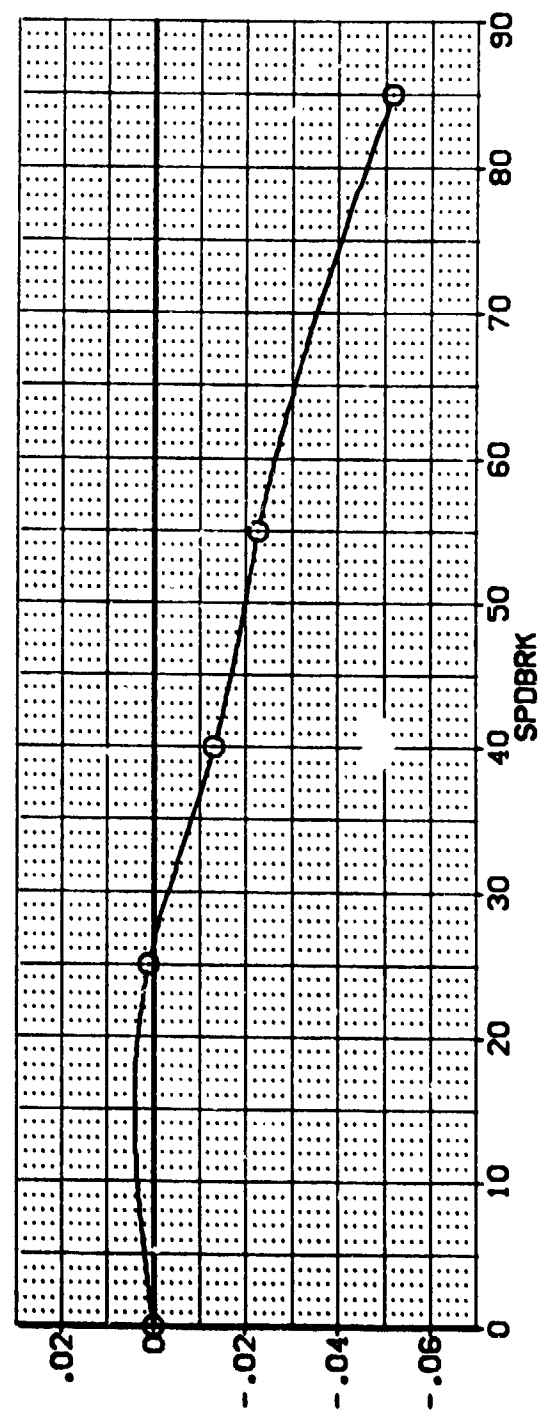
7

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
ALPHA	2.000	MACH	.000	DATASET	SPDBRK	SREF	4.4119	50. FT.
DELTA	.200	DEL VON	.000	G0Z228	.000	LREF	19.2289	INCHES
BD FLAP	-12.000	ATLRON	.000	G0Z152	25.000	BREF	37.9359	INCHES
RUDDER	.000	BETA	.000	G0Z138	40.000	XTRP	43.5974	INCHES
RLUAD	.000		.000	G0Z144	65.000	YTRP	.0000	INCHES
						ZTRP	15.1875	INCHES
						SCALE	.0405	SCALE



DCA



N30

FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

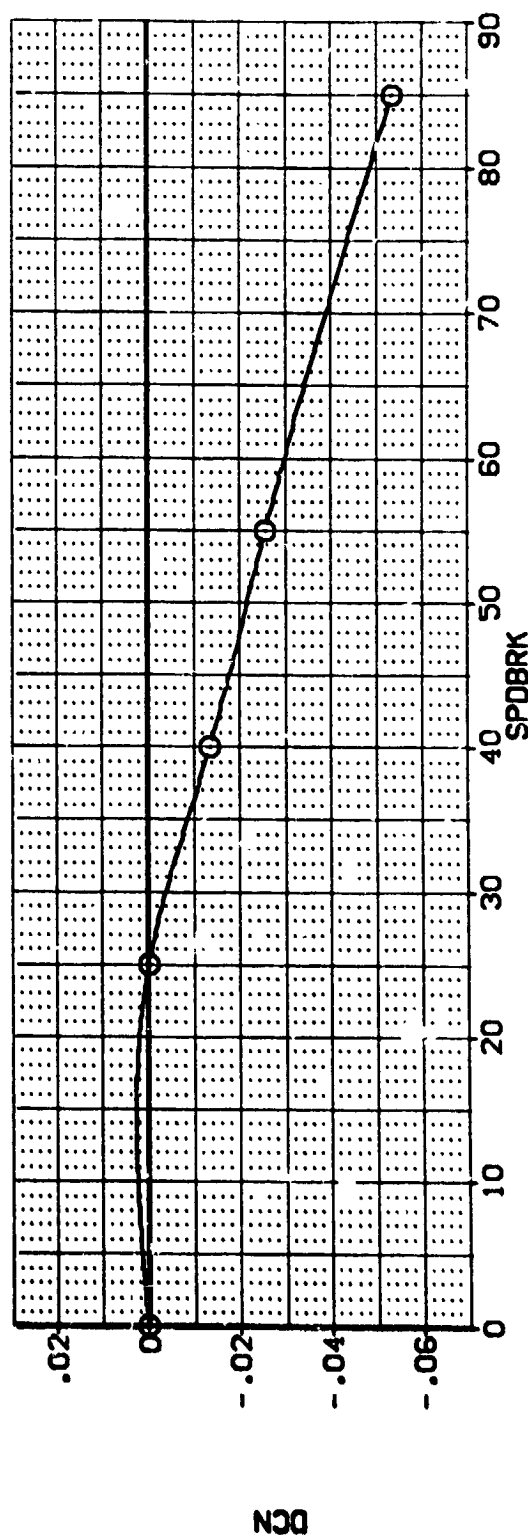
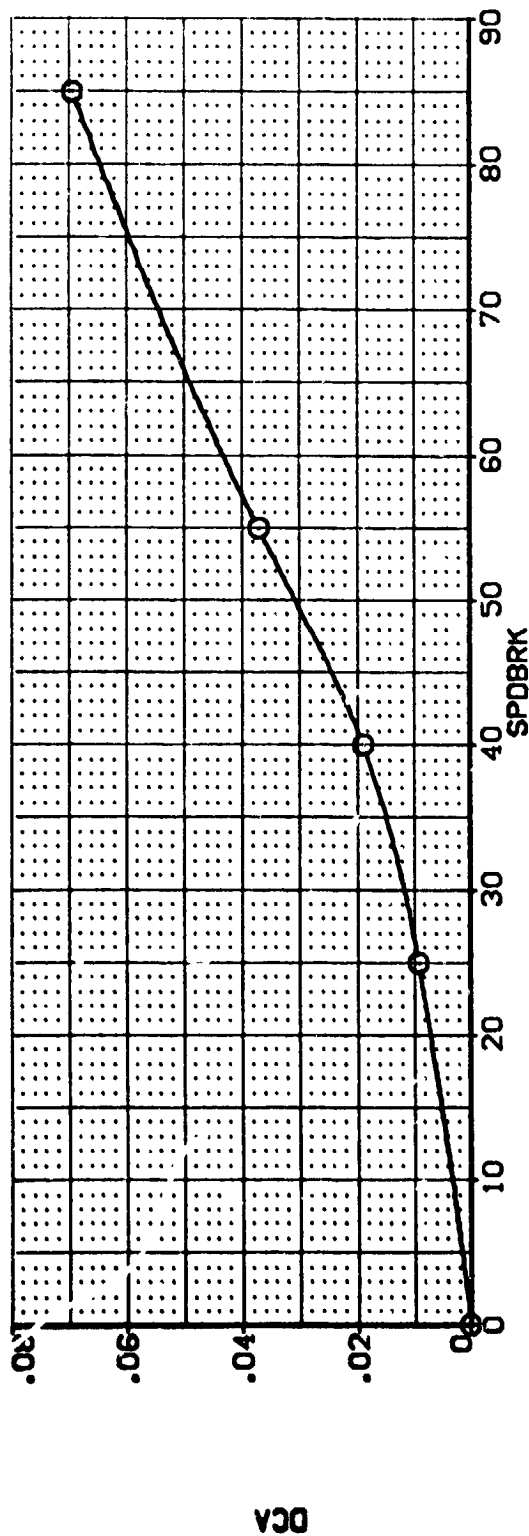
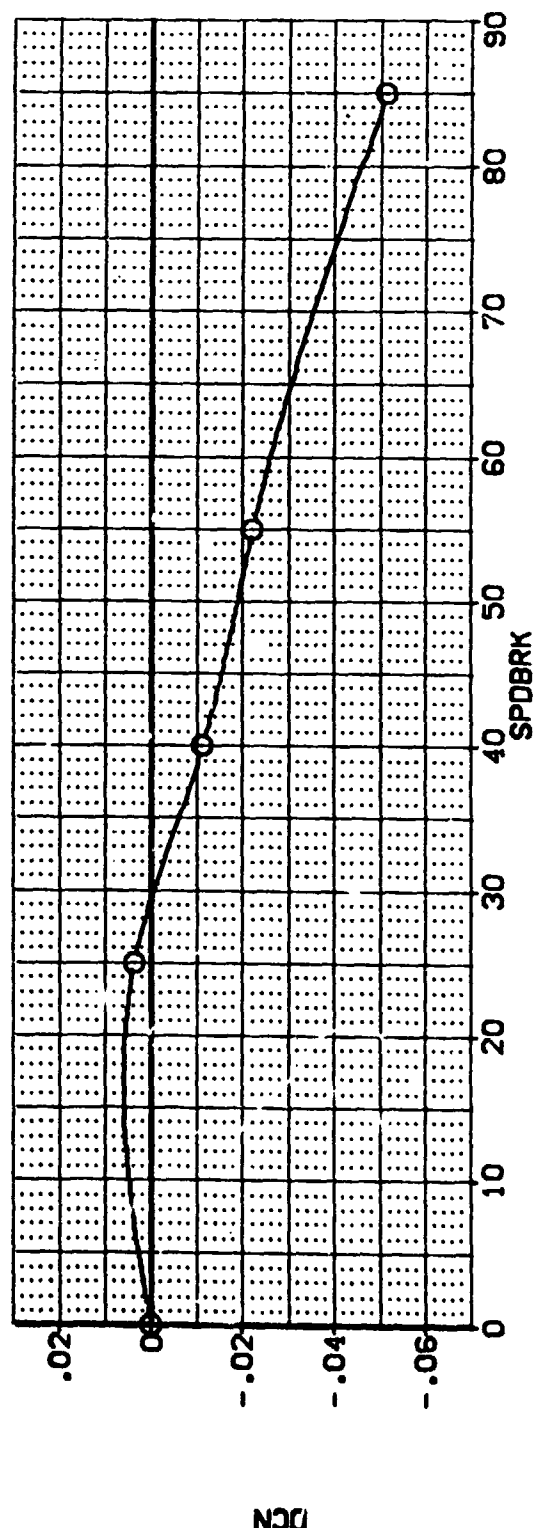
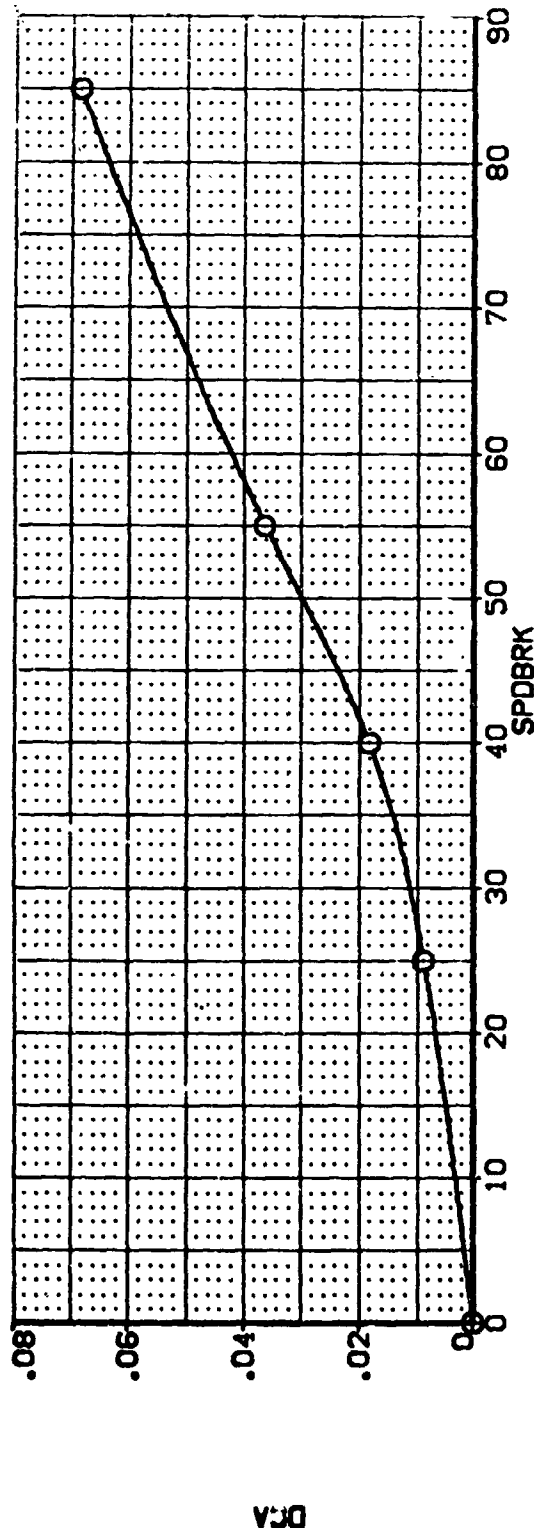
[illegible]

FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

1

[illegible]

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(5)

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	10.000	.000	SPDRK	SPDRK	SPDRK
SYMBOL	O	.000	G0Z228	25.000	4.4119
		.000	G0Z138	55.000	18.2299
		.000	G0Z144	85.000	37.5359
					43.5374
					.0000
					15.1875
					.0405

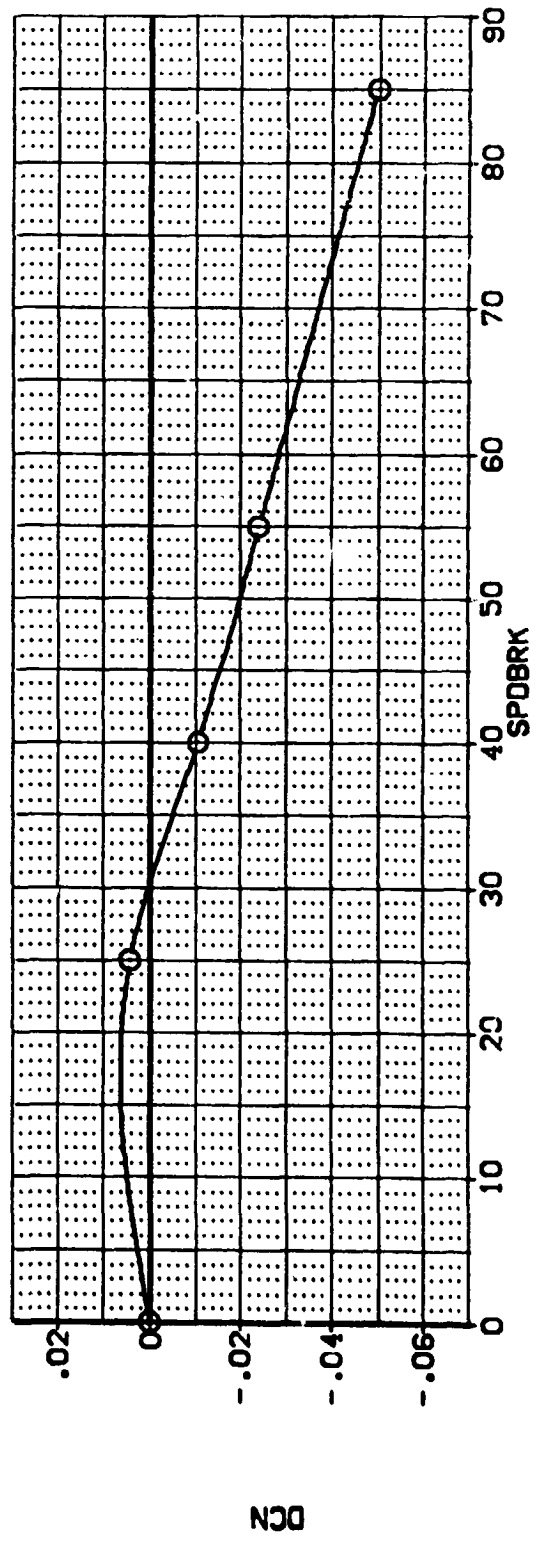
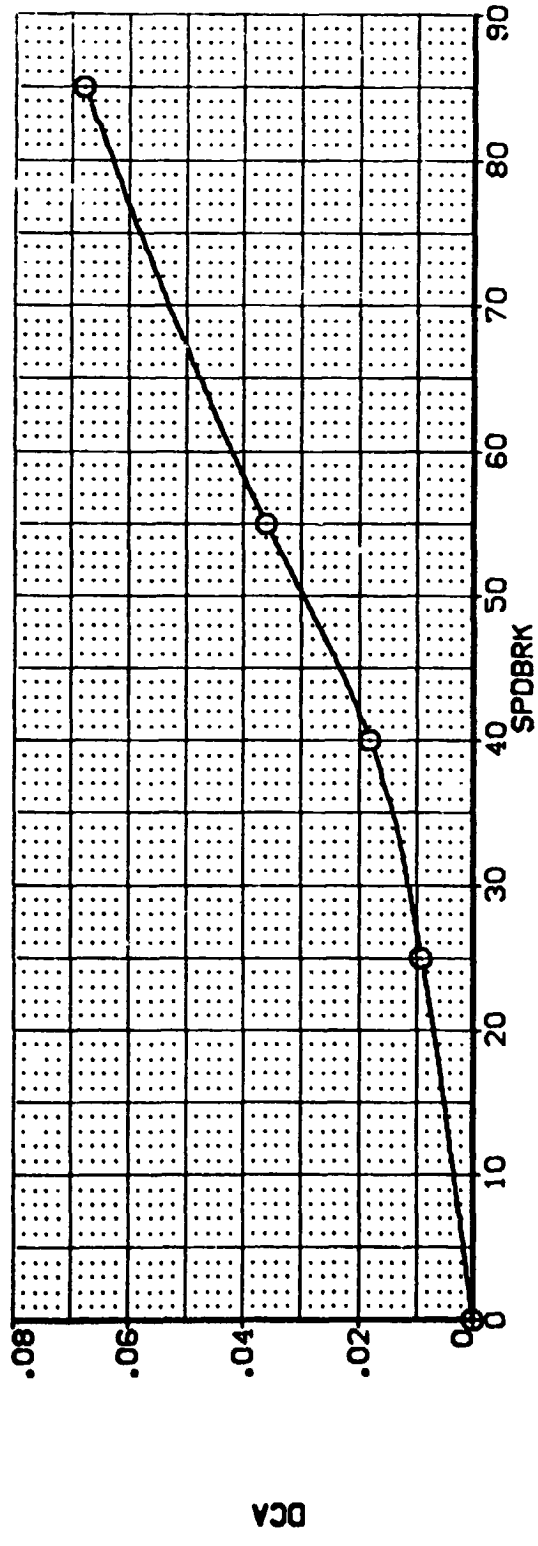


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(GDZ228)

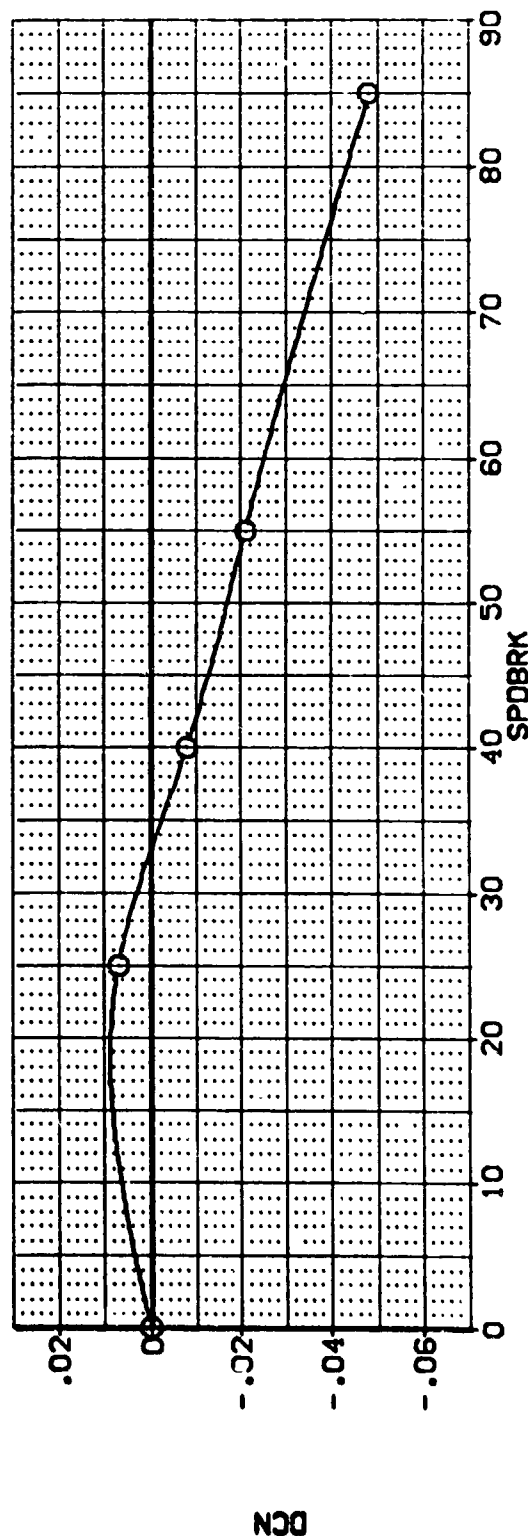
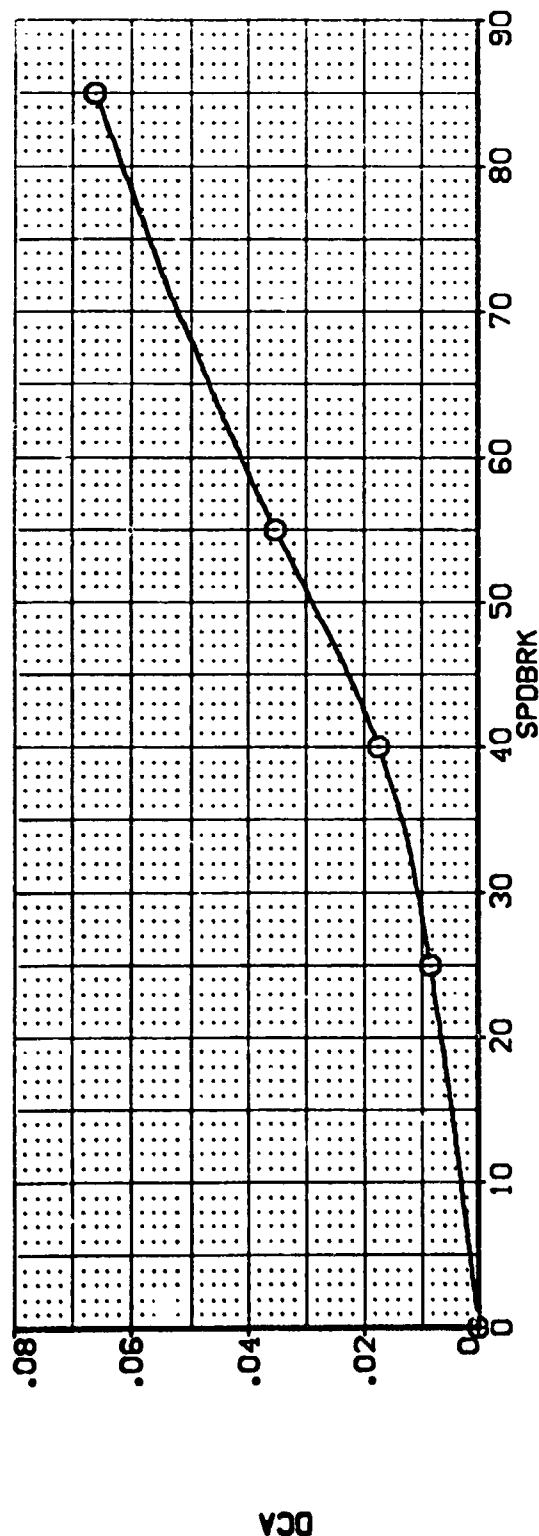
[illegible]

FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



QAS28 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE	REFERENCE INFORMATION			
			DELTA	DELTA	DELTA		SREF	IND-ES	IND-ES	IND-ES
0	14.000		0.00	0.00	0.00	SPDRK	4.4119	4.4119	4.4119	4.4119
			-12.000	0.00	0.00	G0Z228	19.2299	19.2299	19.2299	19.2299
			0.00	0.00	0.00	G0Z138	37.9359	37.9359	37.9359	37.9359
			0.00	0.00	0.00	G0Z144	43.5974	43.5974	43.5974	43.5974
			0.00	0.00	0.00	SPDRK	15.1675	15.1675	15.1675	15.1675
			0.00	0.00	0.00	SCALE	0.0405	0.0405	0.0405	0.0405

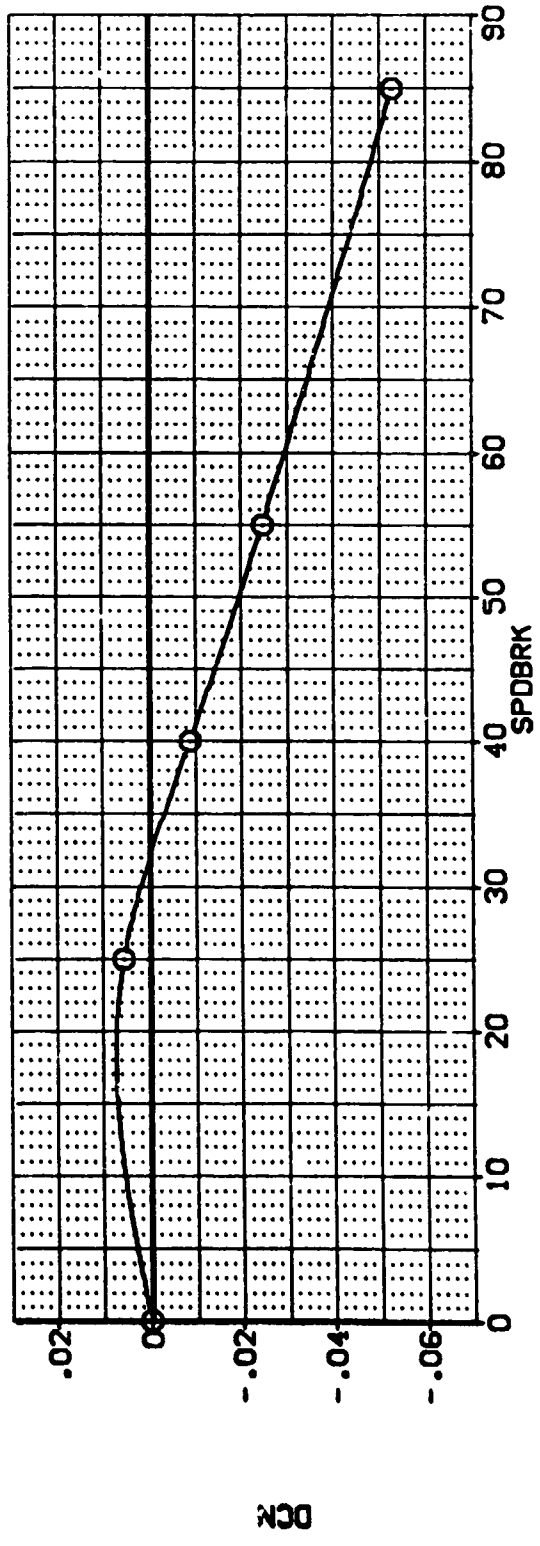
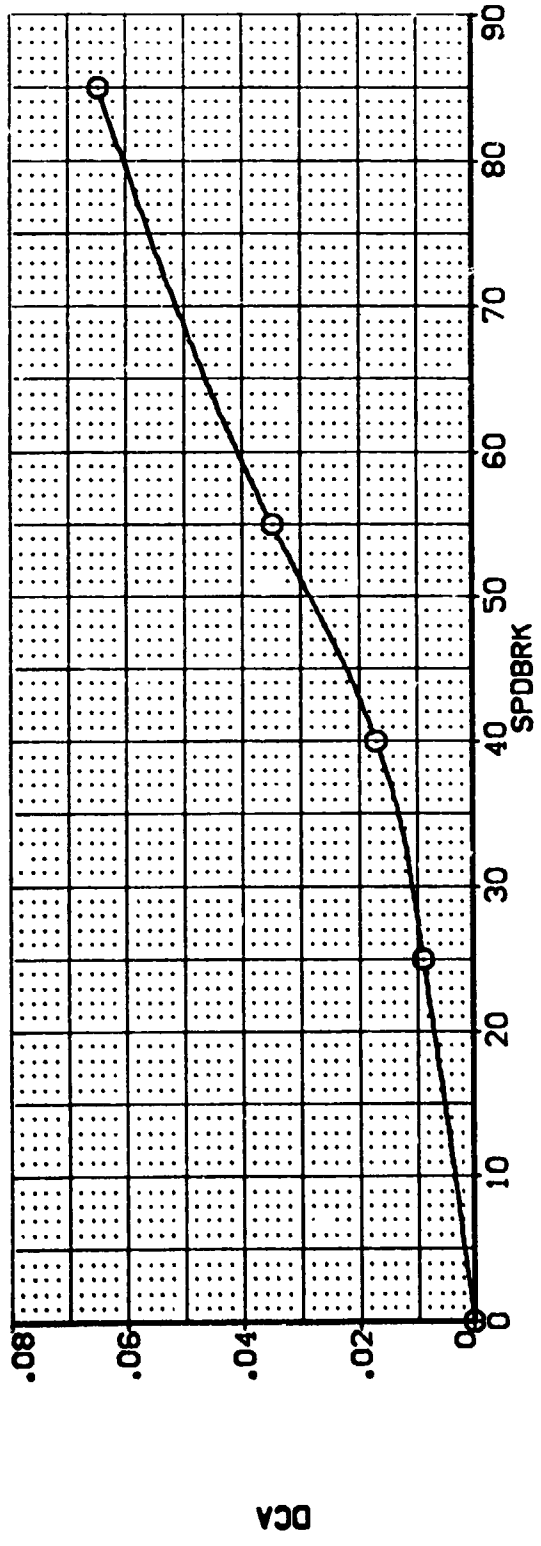


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

4.419	SO.FT.
19.229	IN.OES
37.935	IN.OES
43.597	IN.OES
.000	IN.OES
15.187	IN.OES
.0405	SCALE

REF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE

**SPORAK**  
**25.000**  
**55.000**

**DATASET**  
**GDZ152**  
**GDZ336**

DATA SOURCE  
SPURK  
42,000  
65,000

**DATASET**  
**GOZ228**  
**GOZ138**  
**GOZ144**

888

ERIC VALLIN  
DELVON  
AILRON  
BETA

PARAMETER  
-200  
-12,000  
.000  
.000

**MACH  
BDFLAP  
RUDER  
RULRAD**

16.000  
ALPHA

**0**

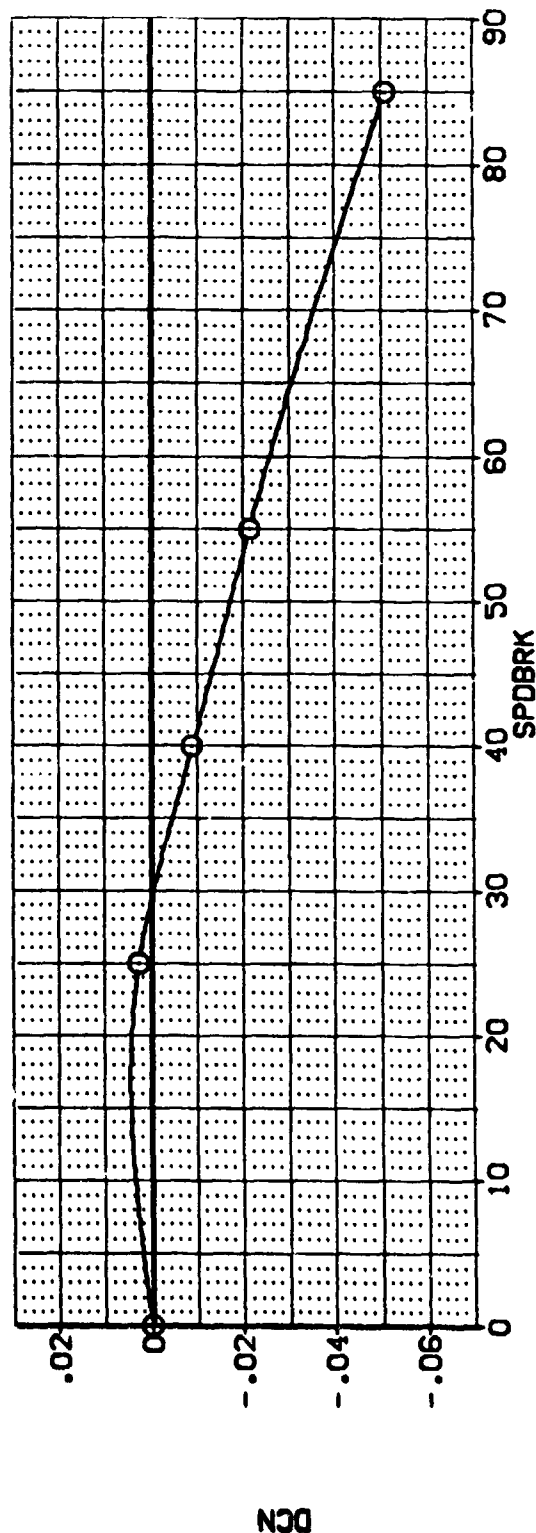
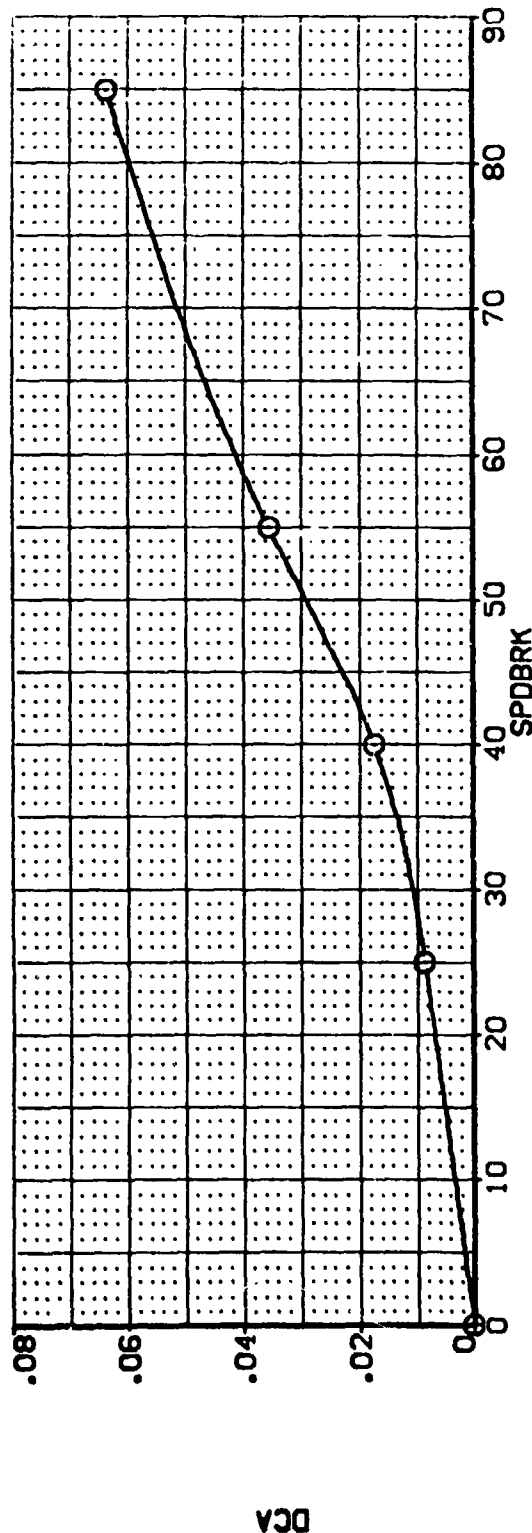


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0





01628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	18.000	.000	SPDBRK	SPDBRK	50. FT.
MACH	.200	.000	DELVN	SPDBRK	INCHES
BOFLAP	-12.000	.000	AIRLON	SPDBRK	INCHES
RUDDER	.000	.000	BETA	SPDBRK	INCHES
R-LRAD	.000	.000		SPDBRK	INCHES

SPDBRK 4.4119  
LREF 19.2259  
BREF 37.9359  
XPRP 43.5574  
YPRP .0000  
ZPRP 15.1875  
SCALE .0405

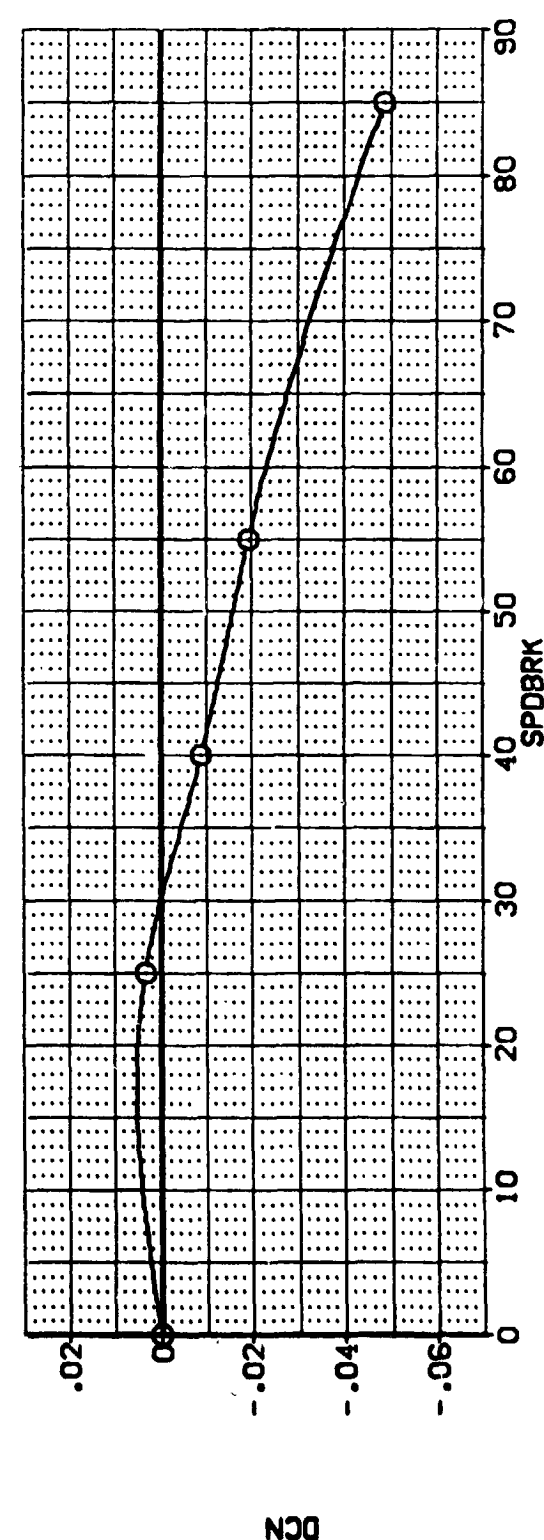
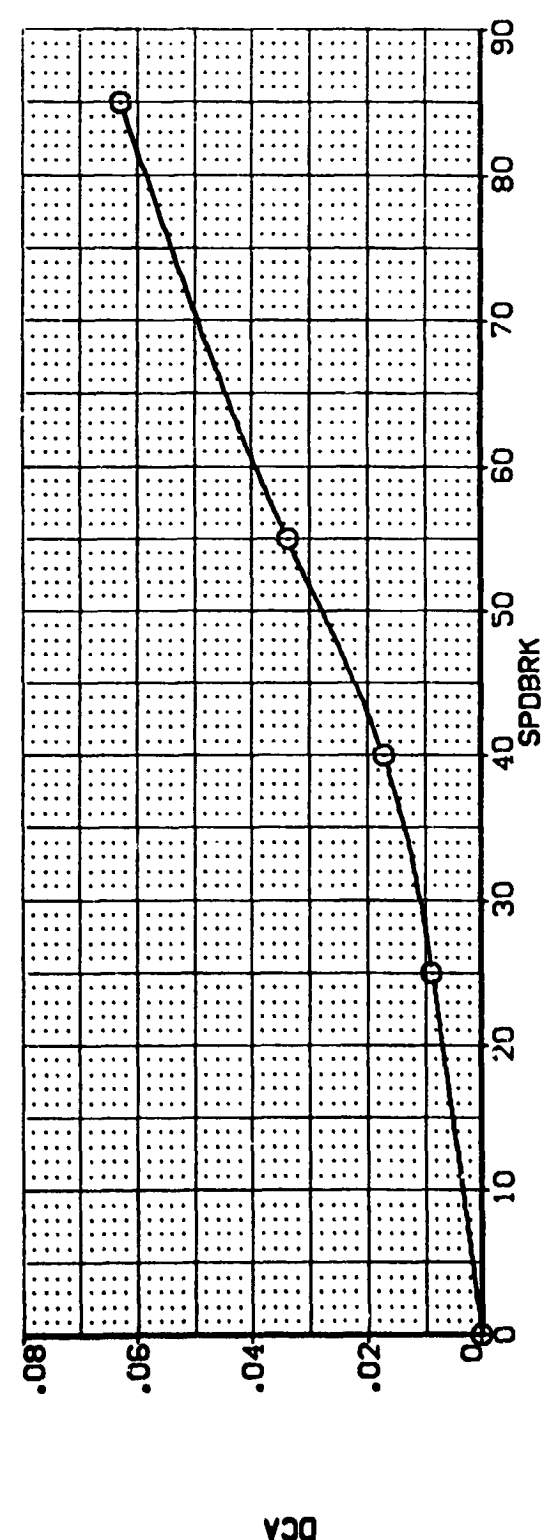


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)  
 SYMBSL ALPHA 20.000  
 O  
 PARAMETRIC VALUES  
 MACH .200 DELVEN  
 EDFLAP -12.000 AILRON  
 RUDDER .000 BETA  
 R-LL340 .000  
 DATA SOURCE  
 SPDBRK .000 DATASET  
 G0Z228 .000  
 G0Z138 .000  
 G0Z144 .000  
 SPDBRK 25.000 DATASET  
 G0Z152 55.000  
 G0Z336  
 REFERENCE INFORMATION  
 SREF 4.4119 90.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XPRP 43.5974 INCHES  
 YPRP .0000 INCHES  
 ZPRP 15.1875 INCHES  
 SCALE .0405 SCALE

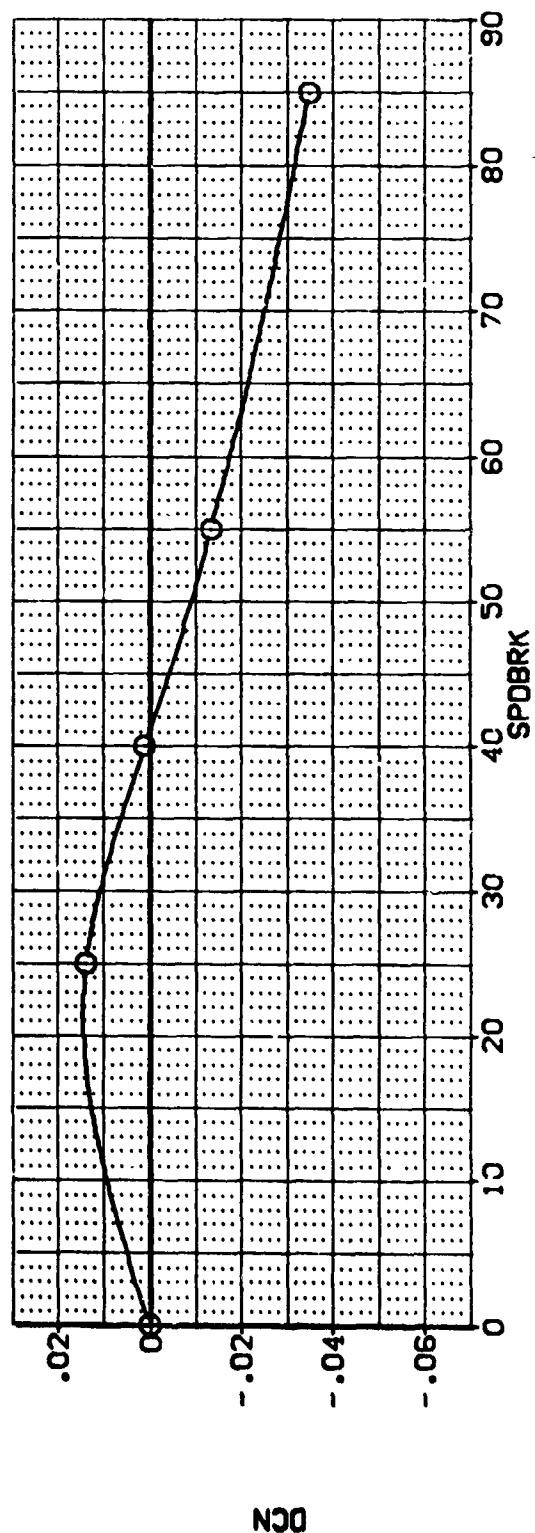
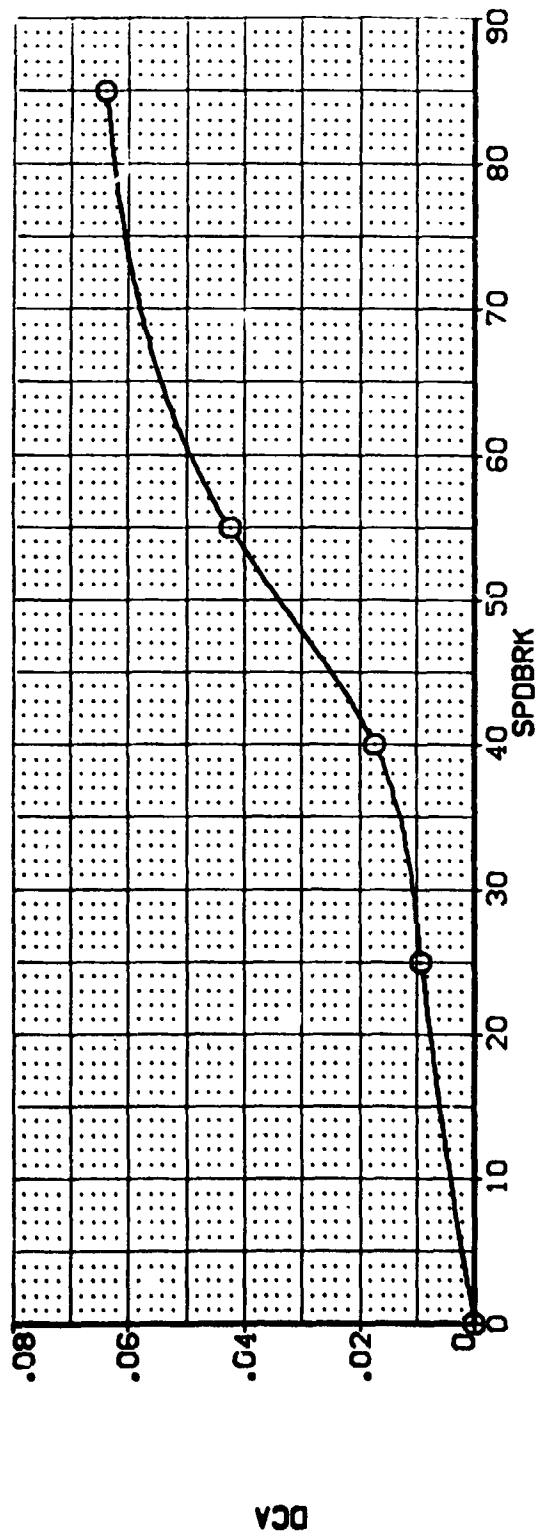


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

1

10

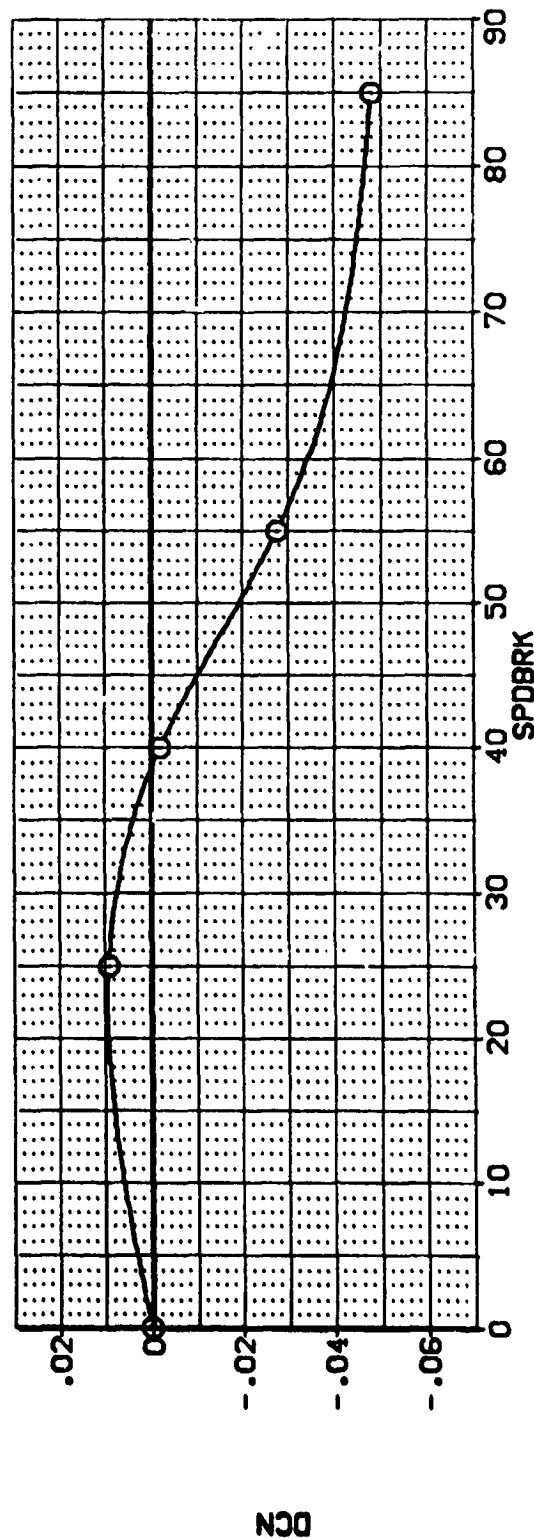


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0	24.000	80FLAP	.200	DELTA	.000	SPDBRK	SPDBRK	80.FT
		RUDDER	-12.000	ATLRN	.000	25.000	REF	INCHES
		RLRNO	.000	BETA	.000	55.000	REF	INCHES
					65.000		REF	INCHES
							YPRP	INCHES
							ZPRP	INCHES
							SCALE	SCALE

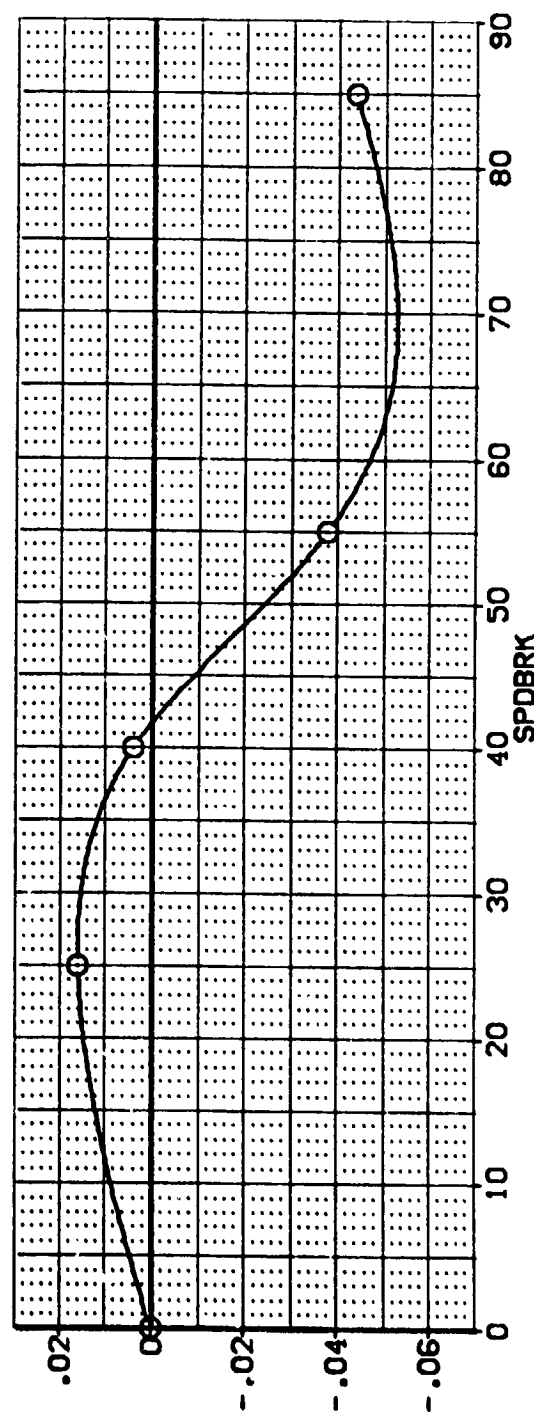
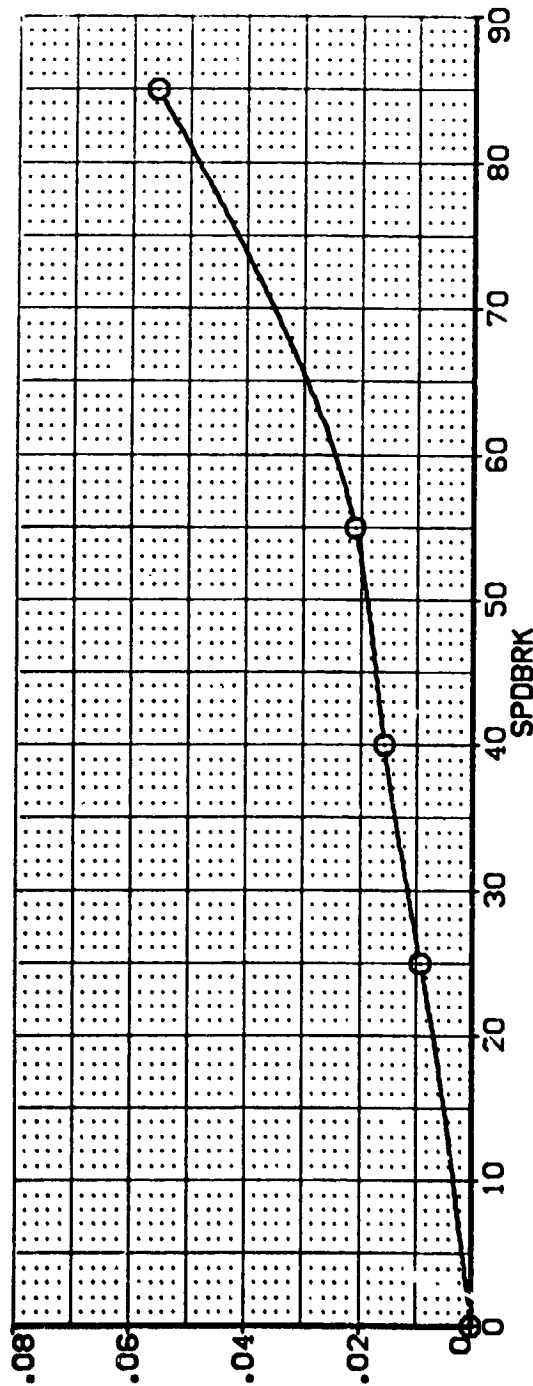


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



SYMBOL  
O

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	26.000	MACH	.200	DELTA	.000	SPDRK	SPDRK	SREF	SG.FT.
BOFLAP	-12.000	AILRON	.000	G0Z228	.000	40.000	25.000	LREF	19.2259
RUDDER	.000	BETA	.000	G0Z138	65.000	55.000	55.000	SREF	37.9359
R-LRAD	.000			G0Z144				XPRP	43.5974
								YPRP	.0000
								ZPRP	15.1875
								SCALE	.0405

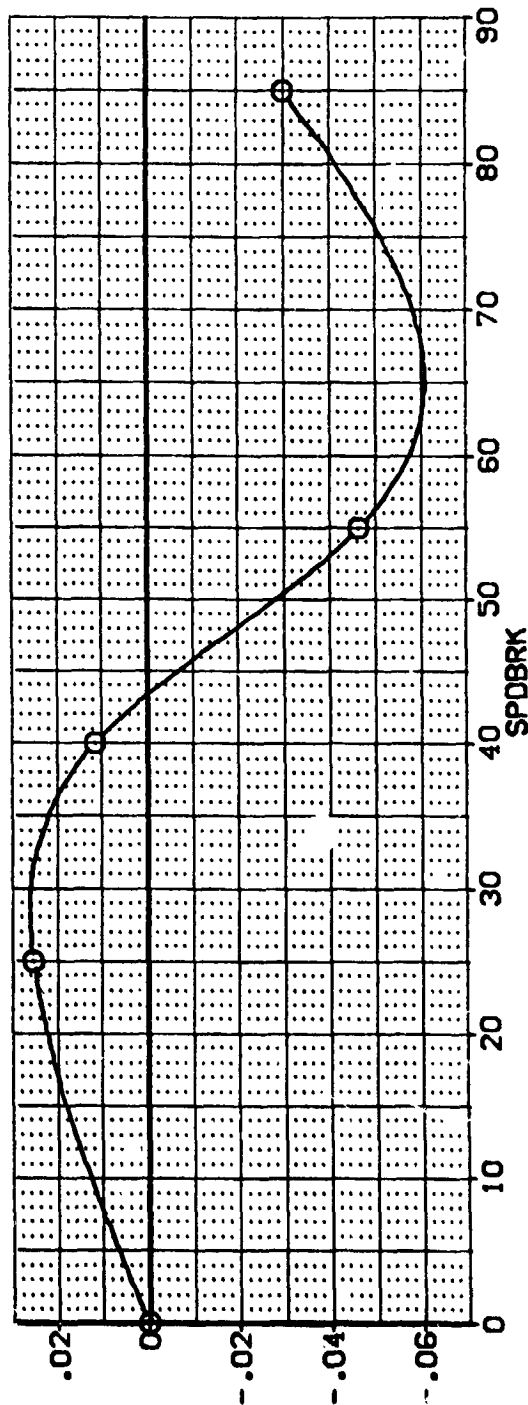
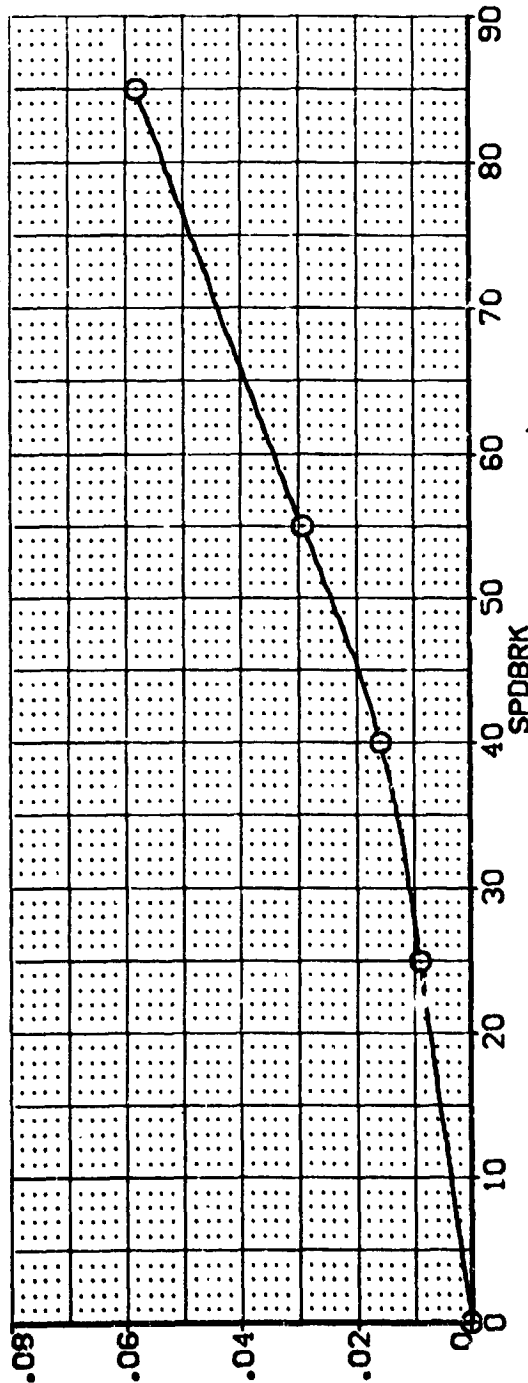


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A62B B26C9 M7F8 W116E28V8R5X9 (GDZ228)  
 SYMBOL ALPHA 20.000  
 O  
 PARAMETRIC VALUES  
 MACH .200 DELVEN  
 BDFLAP -12.000 AILRON  
 RUDDER .000 BETA  
 R-LRAD .000  
 DATA SOURCE  
 DATASET SPDBRK  
 .000 DATASET SPDBRK  
 .000 GDZ228 .000  
 .000 GDZ138 40.000  
 .000 GDZ144 65.000  
 REFERENCE INFORMATION  
 SREF 4.4118 SO.FT.  
 LREF 19.2298 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1675 INCHES  
 SCALE .0405

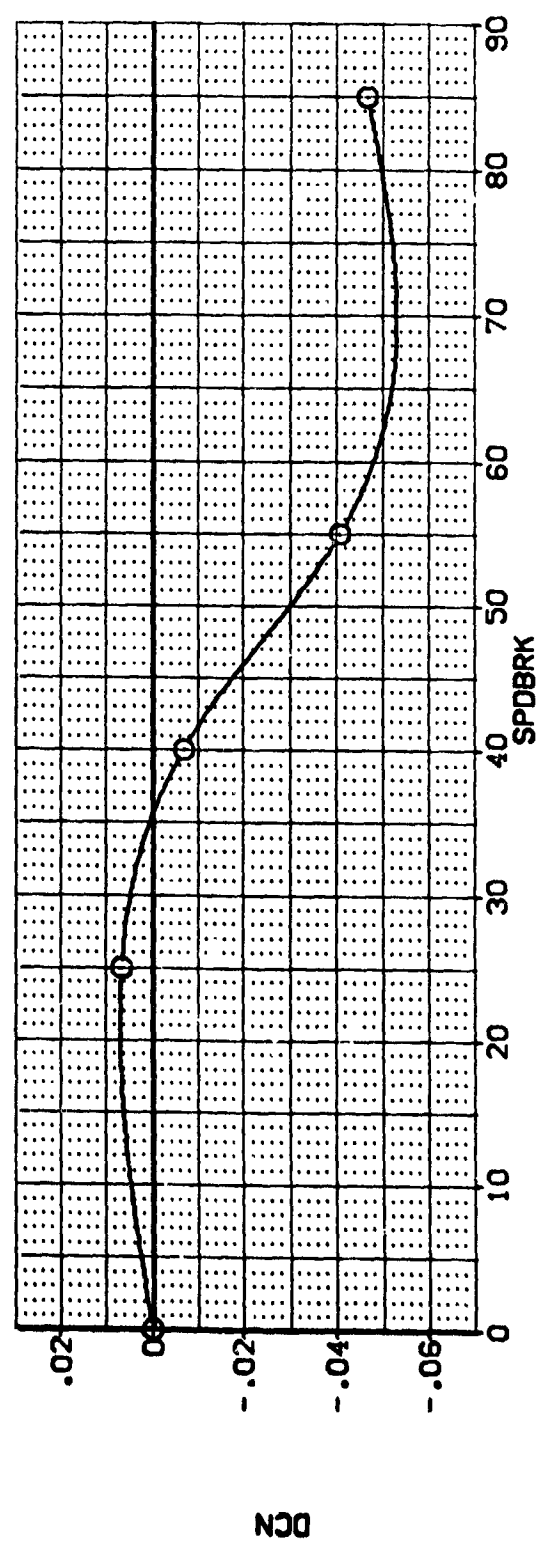
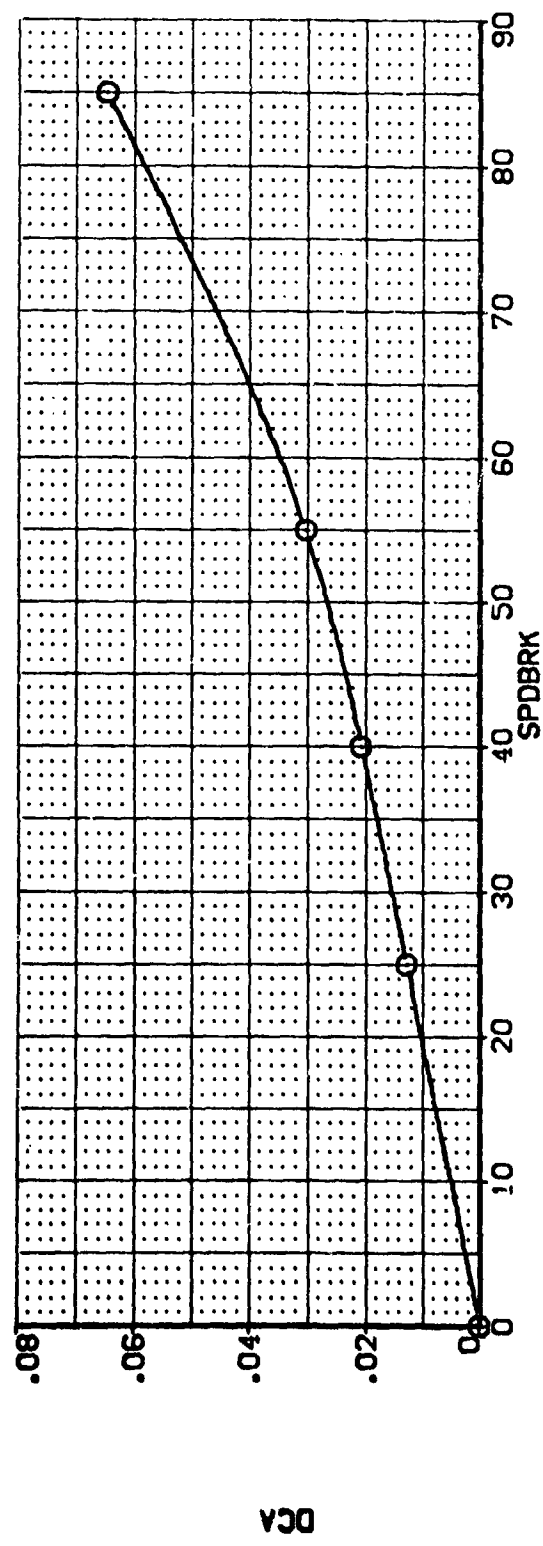


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(G0Z228)

0A628 B26C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
ALPHA	MACH	DELTA	DATASET	SPDRBK	SREF	SO.FT.	
30.000		.200	.000		4.4119	INCHES	
	BOFLAP	-12.000	.000	G0Z228	19.2289	INCHES	
	RUDDER	.000	.000	G0Z138	37.9359	INCHES	
	RUDDAD	.000	.000	G0Z144	43.5974	INCHES	
					YMRP	INCHES	
					ZMRP	INCHES	
					SCALE	SCALE	

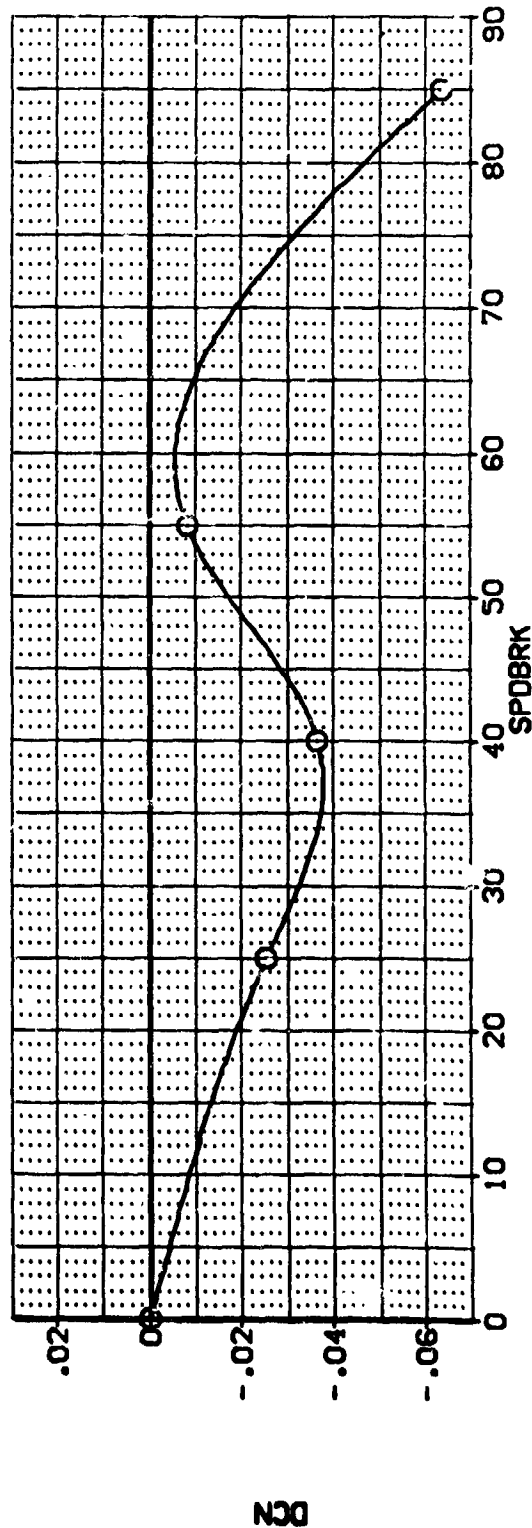
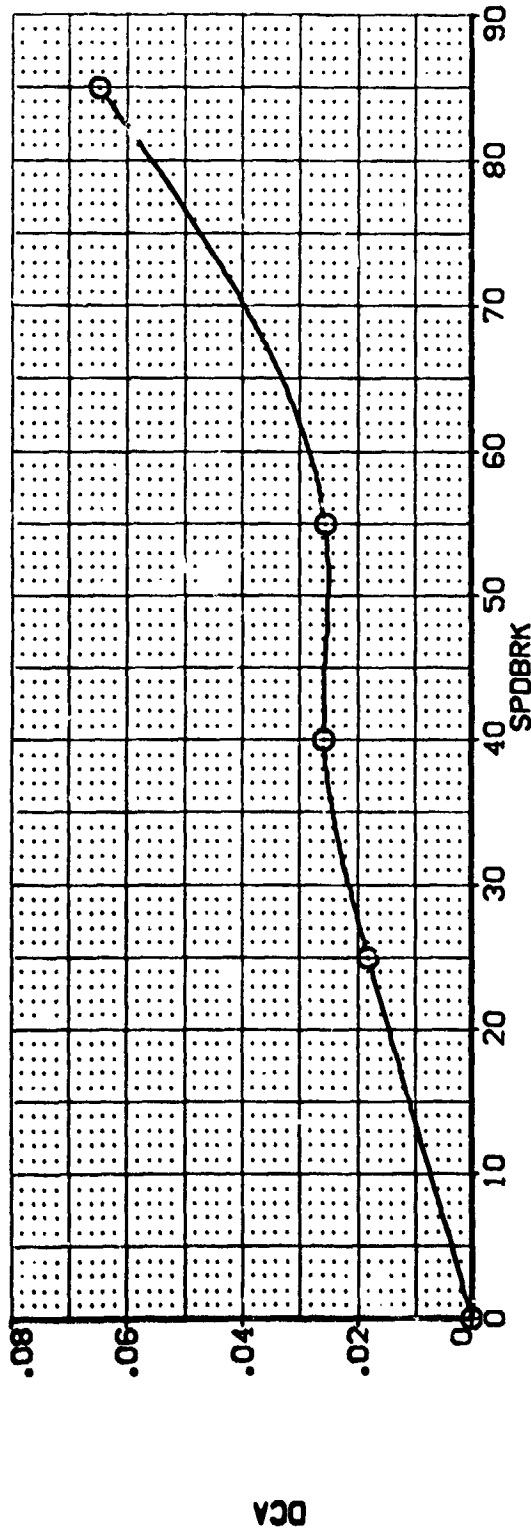


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 B28C9 M7F8 W116E28V8R5X9 (002228)

SWER.	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0	-4.000	EDFLAP	.200	DELTA	.000	SPDBRK	SREF	SO.FT.
		RUDDER	-12.000	AIRLON	.000	SPDBRK	UREF	INCHES
		RUAD	.000	BETA	.000	SPDBRK	YREF	INCHES
			.000		.000	SPDBRK	ZREF	INCHES
			.000		.000	SPDBRK	SCALE	SCALE

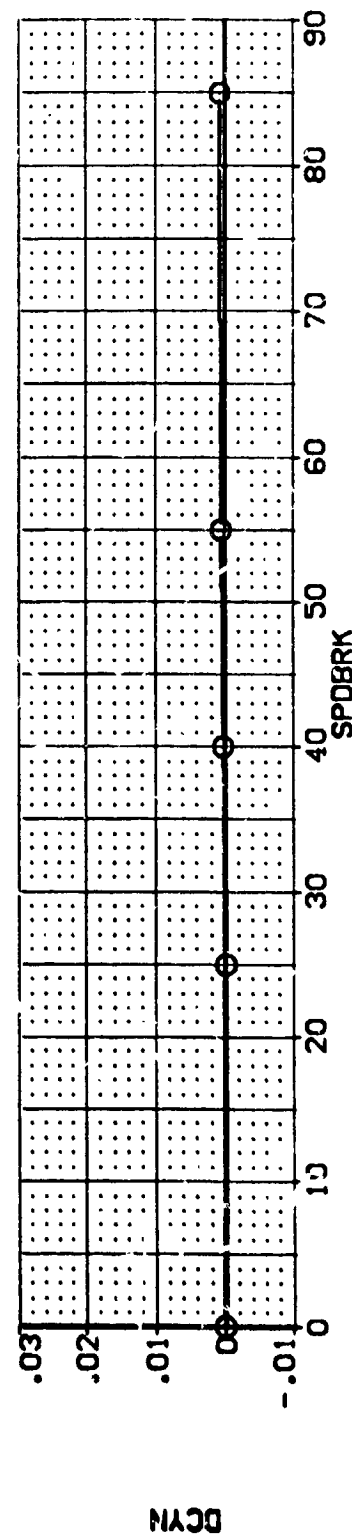
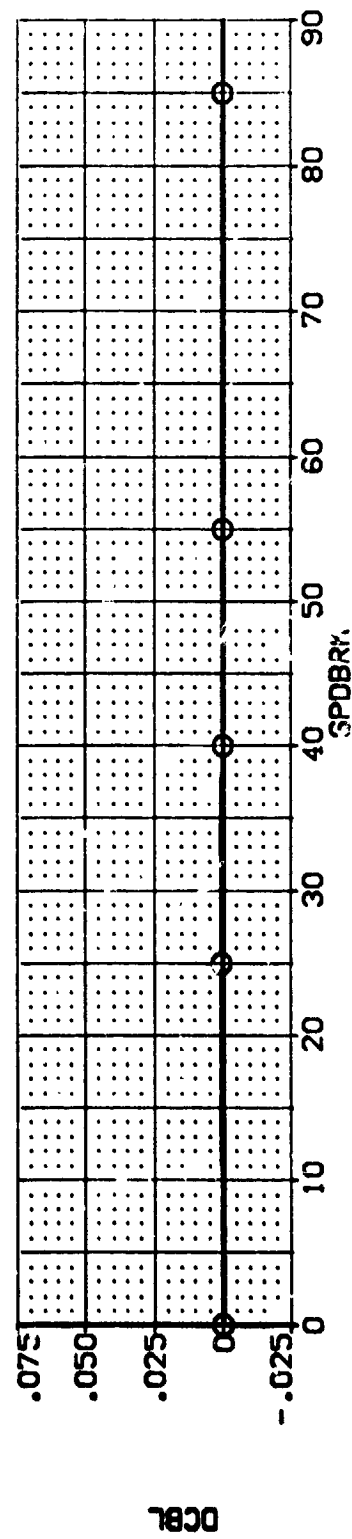
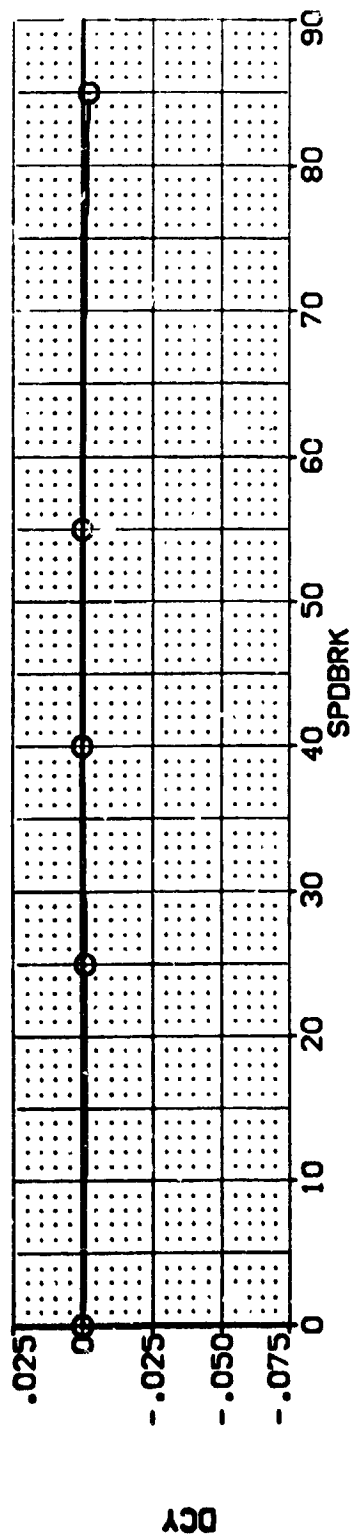


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0





(G0Z228)

0A603 B26C9 M758 W116F28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	SPDRK	REFERENCE INFORMATION
0	-2.100	BD-LAP	.200 DELTA	.000	G0Z228	25.000	REF 4.4119 50.FT.
		RUDDER	-12.000 ALPHA	.000	G0Z228	55.000	REF 19.2299 INCHES
		R-LRAD	.000 BETA	40.000	G0Z228	55.000	REF 37.9359 INCHES
			.030	65.000	G0Z228	55.000	REF 43.5974 INCHES
							REF 11.30 INCHES
							REF 27.80 INCHES
							SCALE 15.1875 INCHES
							SCALE .0495

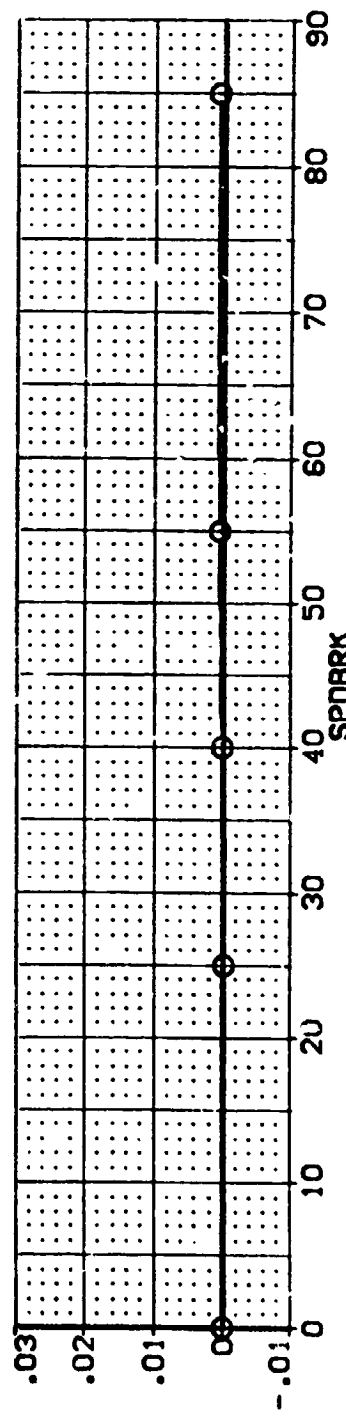
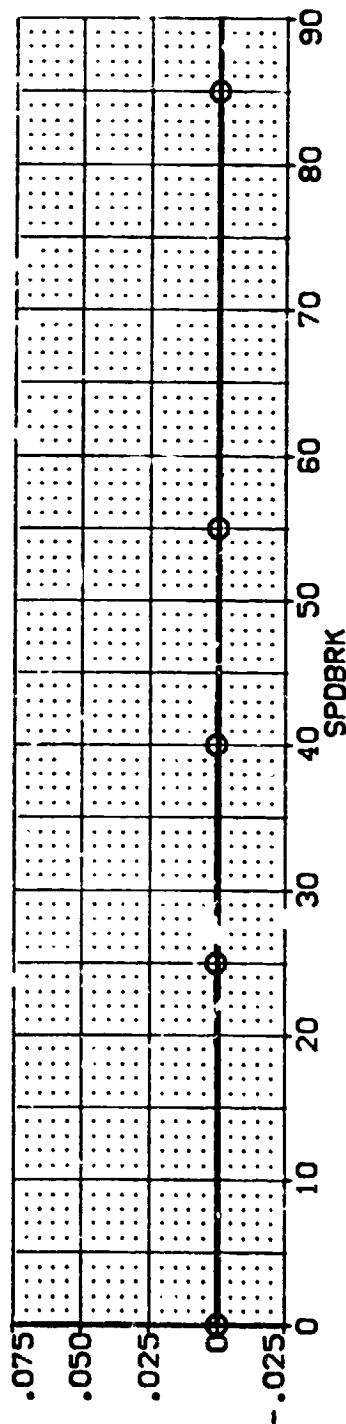
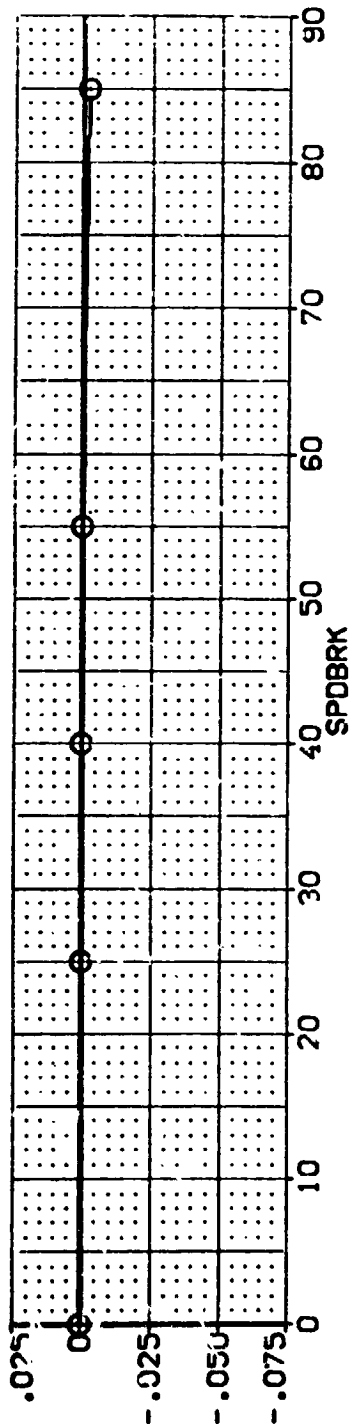
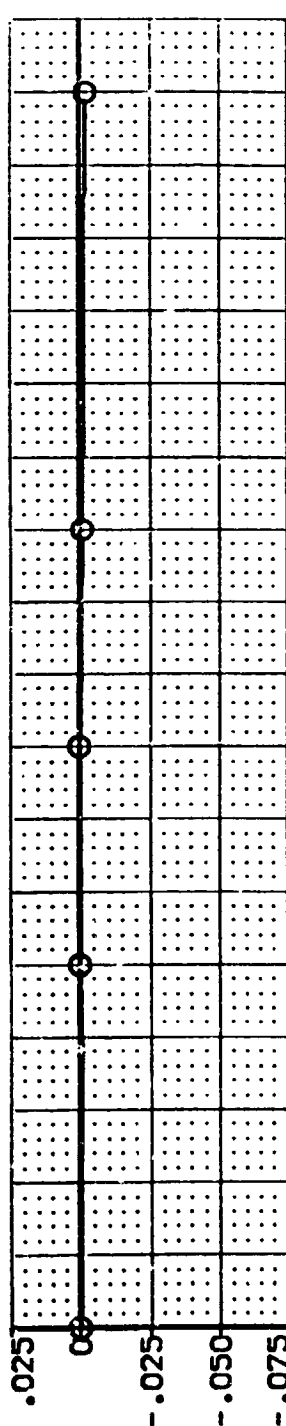


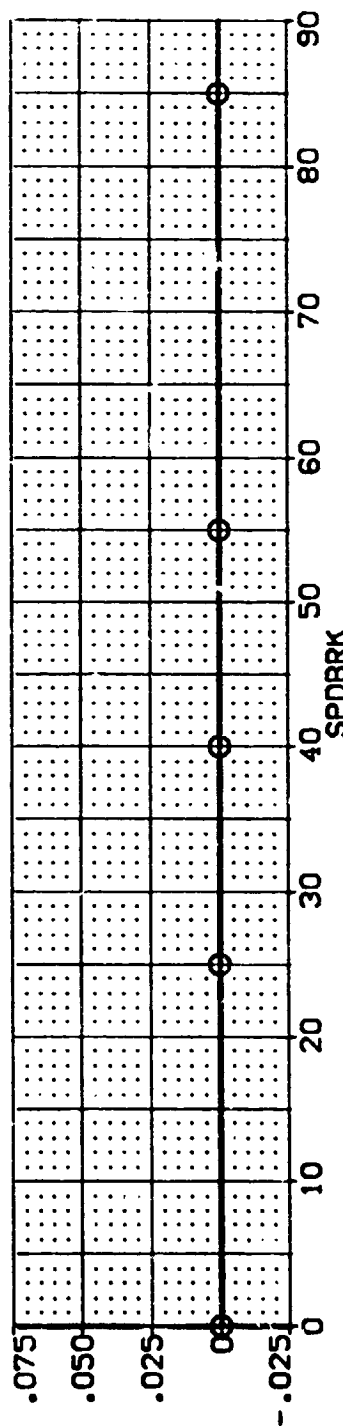
FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 826C9 M7F8 W116E28V8R5X9 (G0Z226)

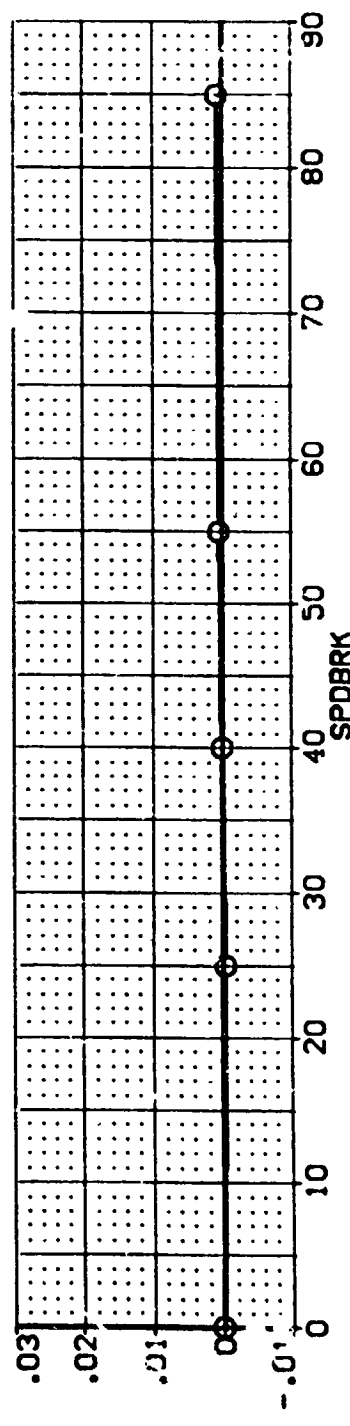
SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	-1.000				
			.000 DELVON	SPDBRK	4.4119 SQ.FT.
			-12.000 AILRON	SPDBRK	19.2299 INCHES
			.000 BETA	SPDBRK	37.5359 INCHES
			.000	SPDBRK	43.5974 INCHES
			.000	SPDBRK	15.0000 INCHES
			.000	SPDBRK	15.1875 INCHES
			.000	SPDBRK	SCALE



DCY



DCBL



DCVN

FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



0A62B 826C9 M7F8 W116E28V8R5X9 (G0Z228)  
 SYMBL ALPHA MACH PARAMETRIC VALUES DATA SOURCE REFERENCE INFORMATION  
 O 1.000 .200 DELVEN .000 DATASET SPOBRK SREF SQ.FT.  
 BOFLAP -12.000 AILRON .000 G0Z228 .000 LREF INCHES  
 RUDDER .000 BETA .000 G0Z138 40.000 BREF INCHES  
 R-RAUD .000 .000 G0Z144 25.000 YMRP INCHES  
 ZMRP INCHES  
 SCALE .0405

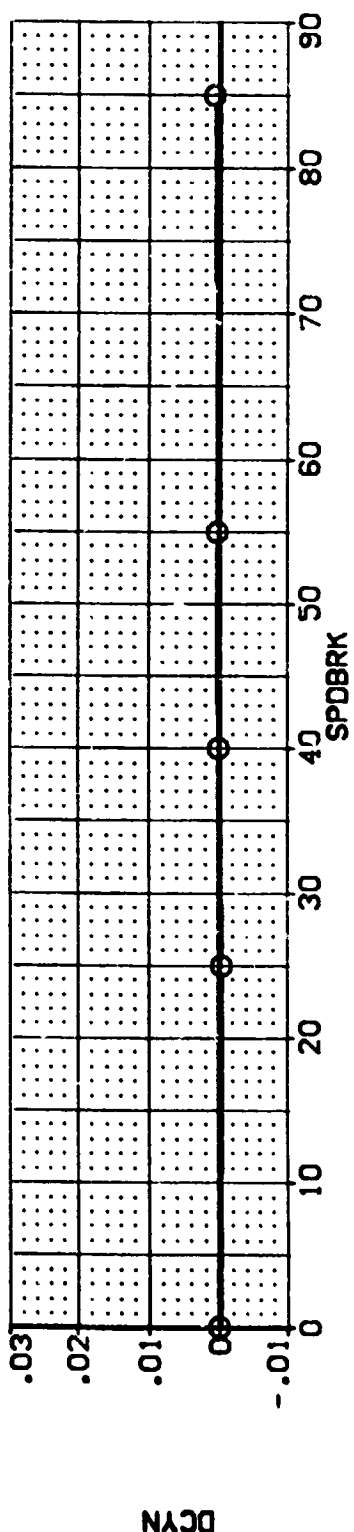
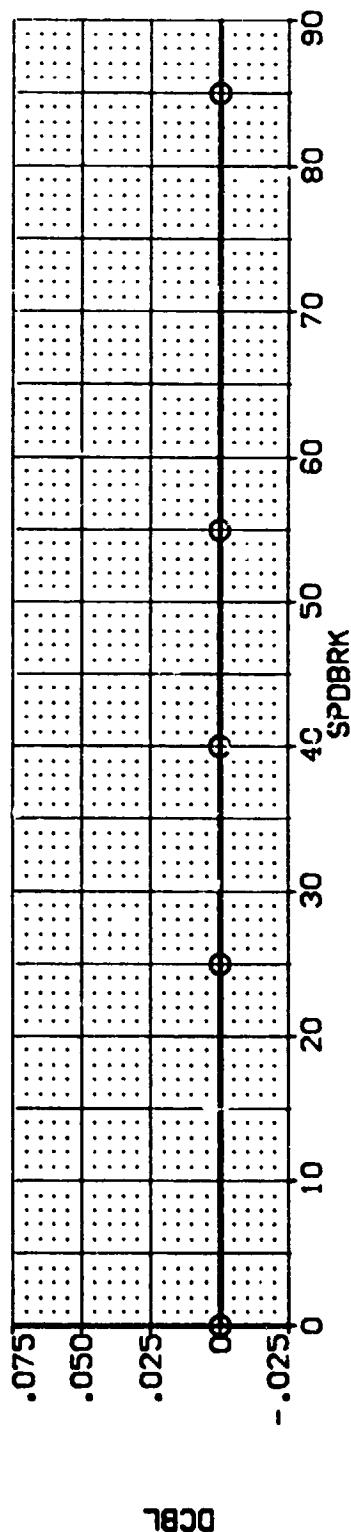
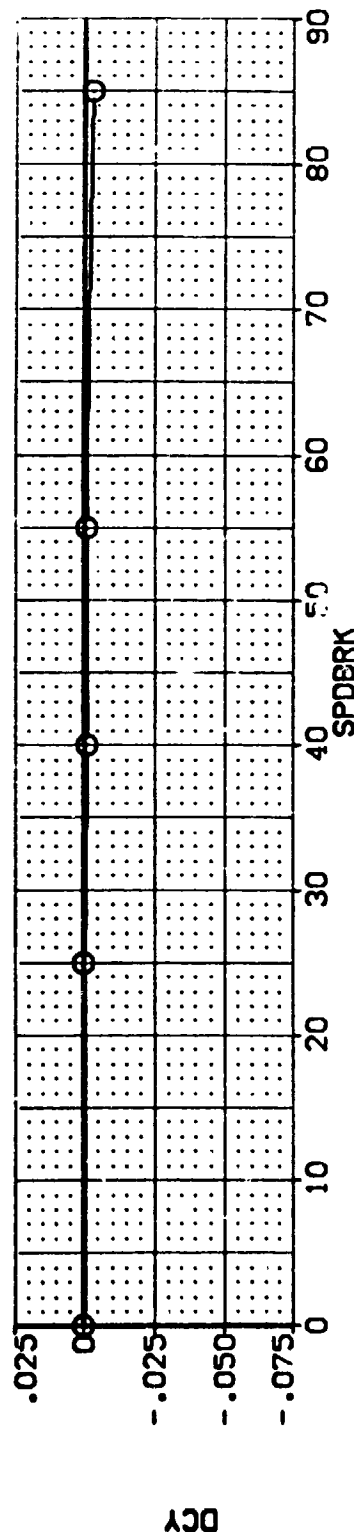


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	2.000	DELTA	0.000	SPDRK	4.118
DELTA	0.000	DELTA	0.000	REF	19.229
DELTA	0.000	DELTA	0.000	REF	37.639
DELTA	0.000	DELTA	0.000	REF	43.597
DELTA	0.000	DELTA	0.000	REF	15.187
DELTA	0.000	DELTA	0.000	REF	0.040
DELTA	0.000	DELTA	0.000	REF	0.040

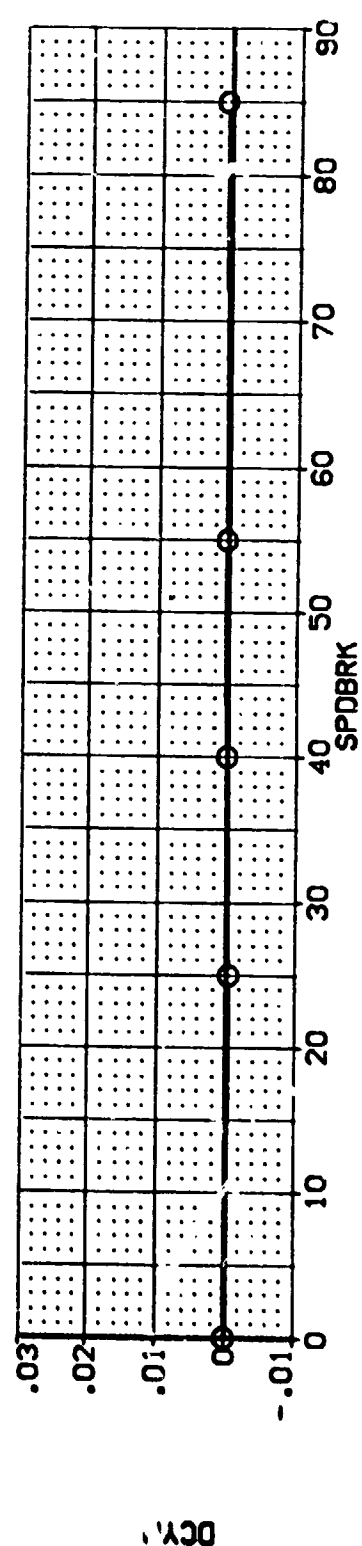
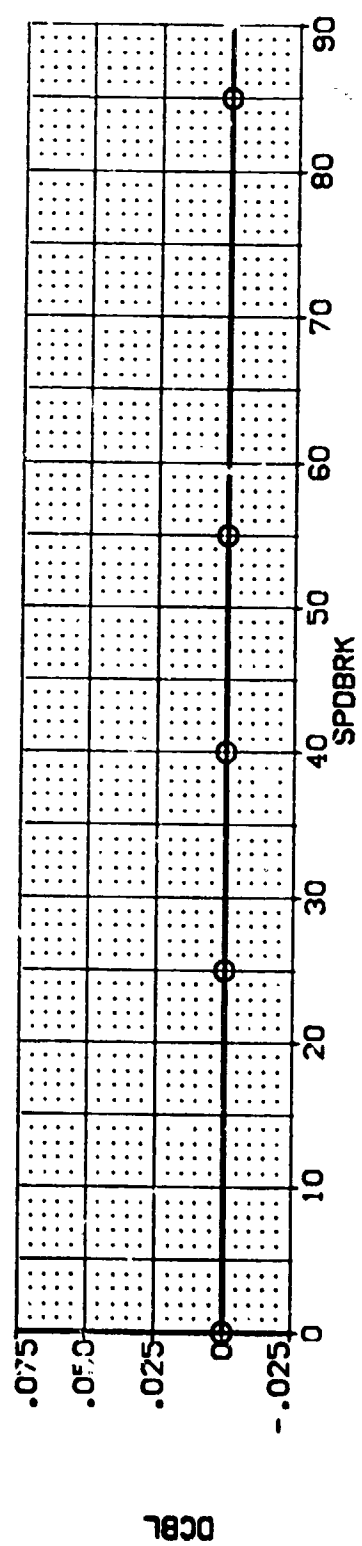
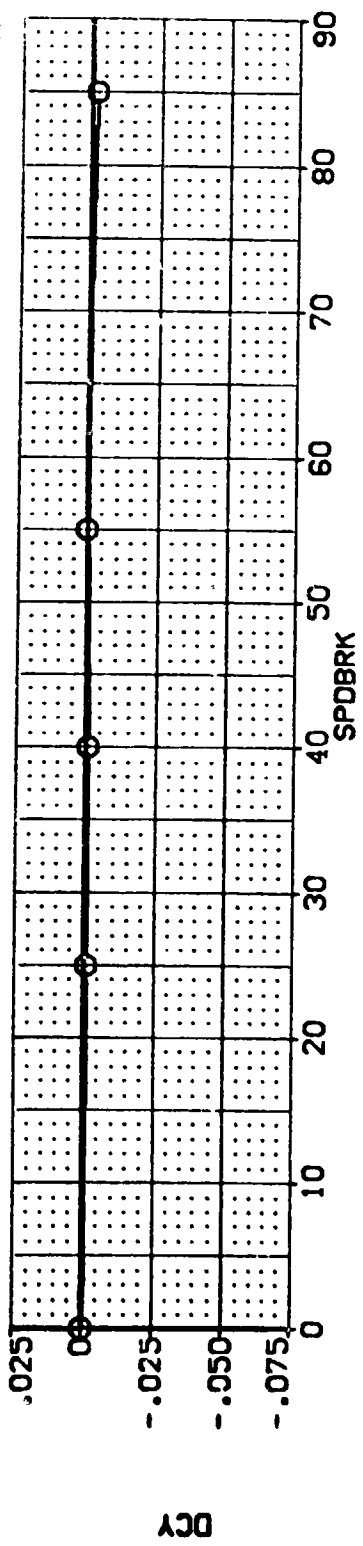


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

**(GDZ228)**

REFERENCE INFORMATION

4.4119	SQ.FT.
19.2299	INCHES
37.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

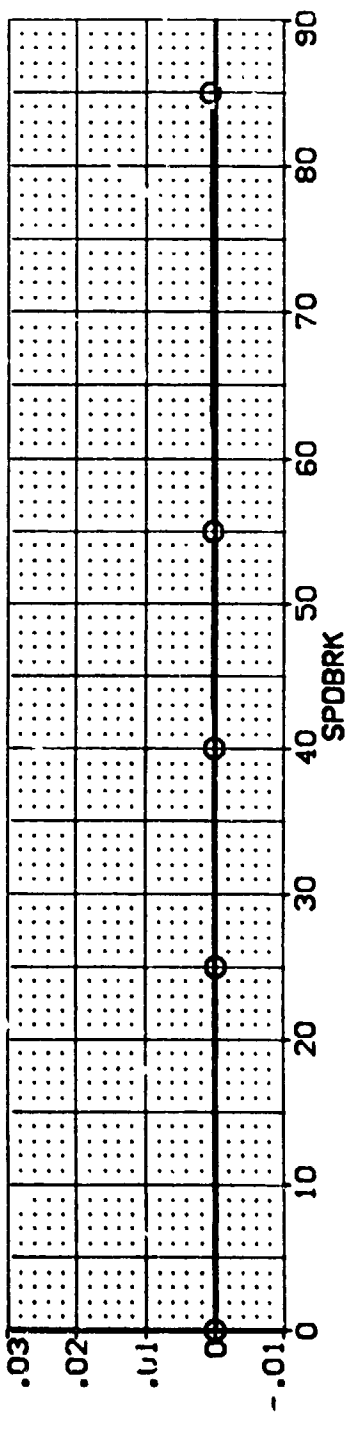
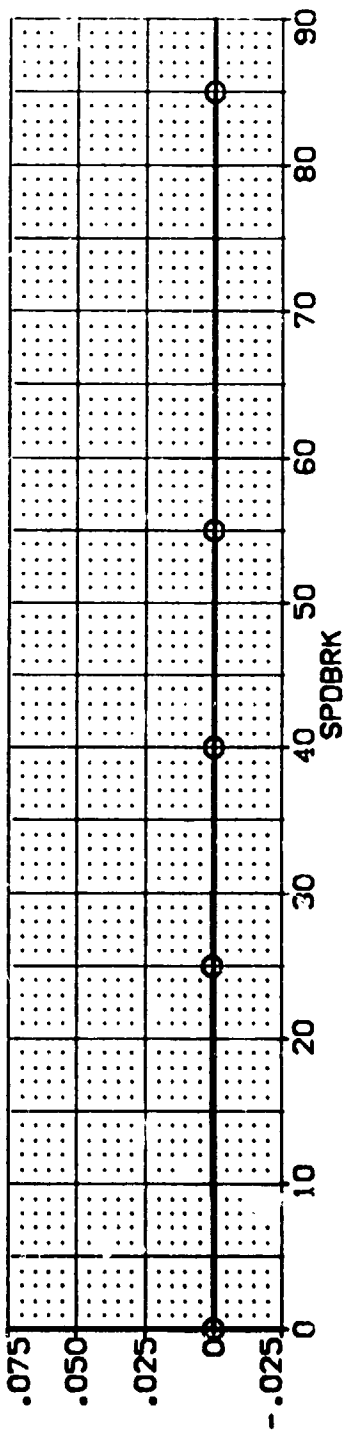
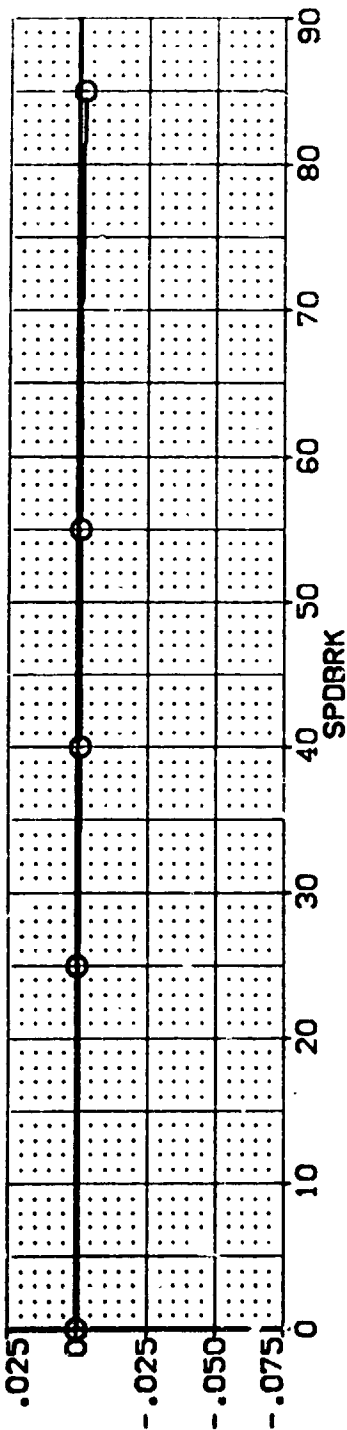


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

**1000**

(GDZ228)

**ALPHA**  
**6.000**

ALPHA		PARAMETRIC VALUES
6.000	WACH	.200 DELVON
	BDTLP	-12.000 AILRON
	RUDER	.000 BETA
	R4LRAD	.000

DATA SOURCE	SPORBK
	.000
	40.000
	85.000

DATASET	SPOBRX
GOZ152	25.000
GOZ306	55.000

REFERENCE INFORMATION	
4.4119	50. FT.
19.2299	INCHES
37.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

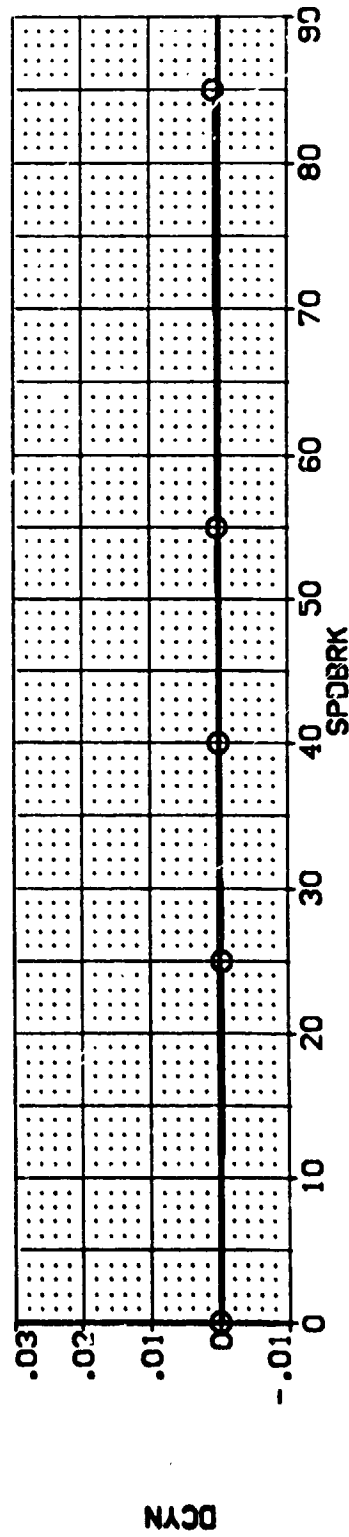
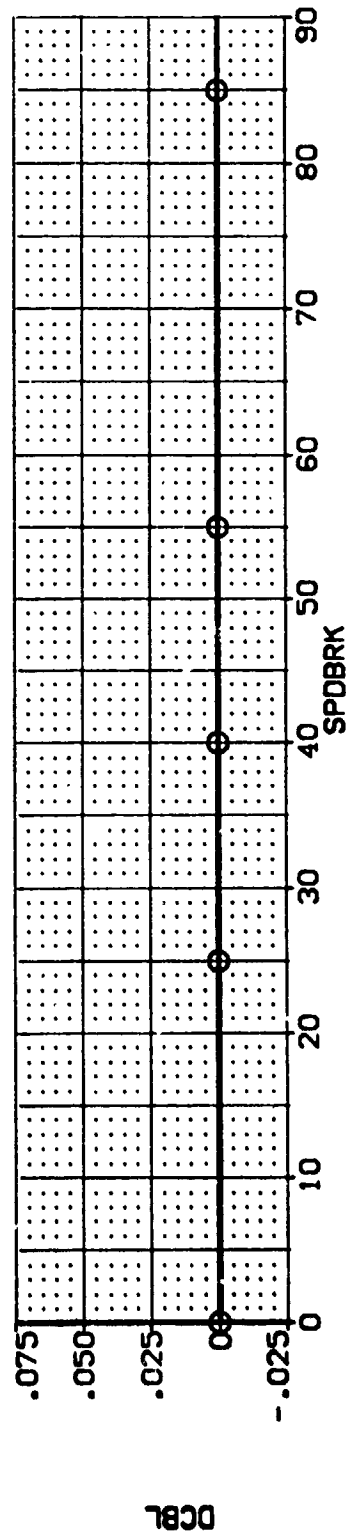
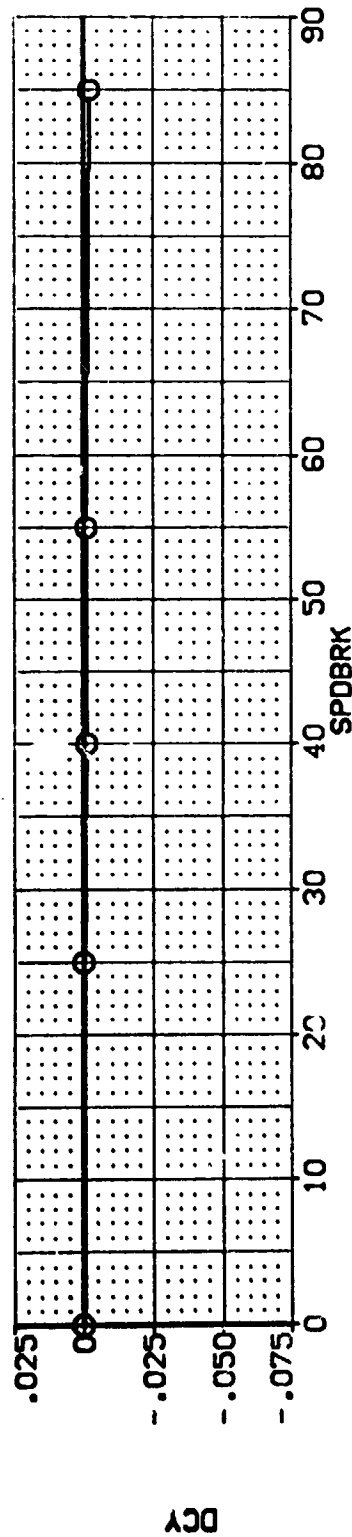


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)  
 SYMBO. ALP.A HACH BOFLAP RUDDER R-LRAD  
 O R.000 .200 -12.000 .000 .000  
 PARAMETRIC VALUES  
 DELVON AILRON BETA  
 .000 .000 .000  
 DATA SOURCE  
 DATASET SPOBRK  
 .000 .000  
 G0Z228 G0Z138  
 G0Z30S 40.000  
 85.000  
 REFERENCE INFORMATION  
 SREF LREF BREF XMRP YMRP ZMRP SCALE  
 4.4119 19.2298 37.9558 43.5974 .0000 .0000 15.1875  
 INCHES INCHES INCHES INCHES INCHES INCHES INCHES  
 SO.FT. INCHES INCHES INCHES INCHES INCHES INCHES  
 SCALE

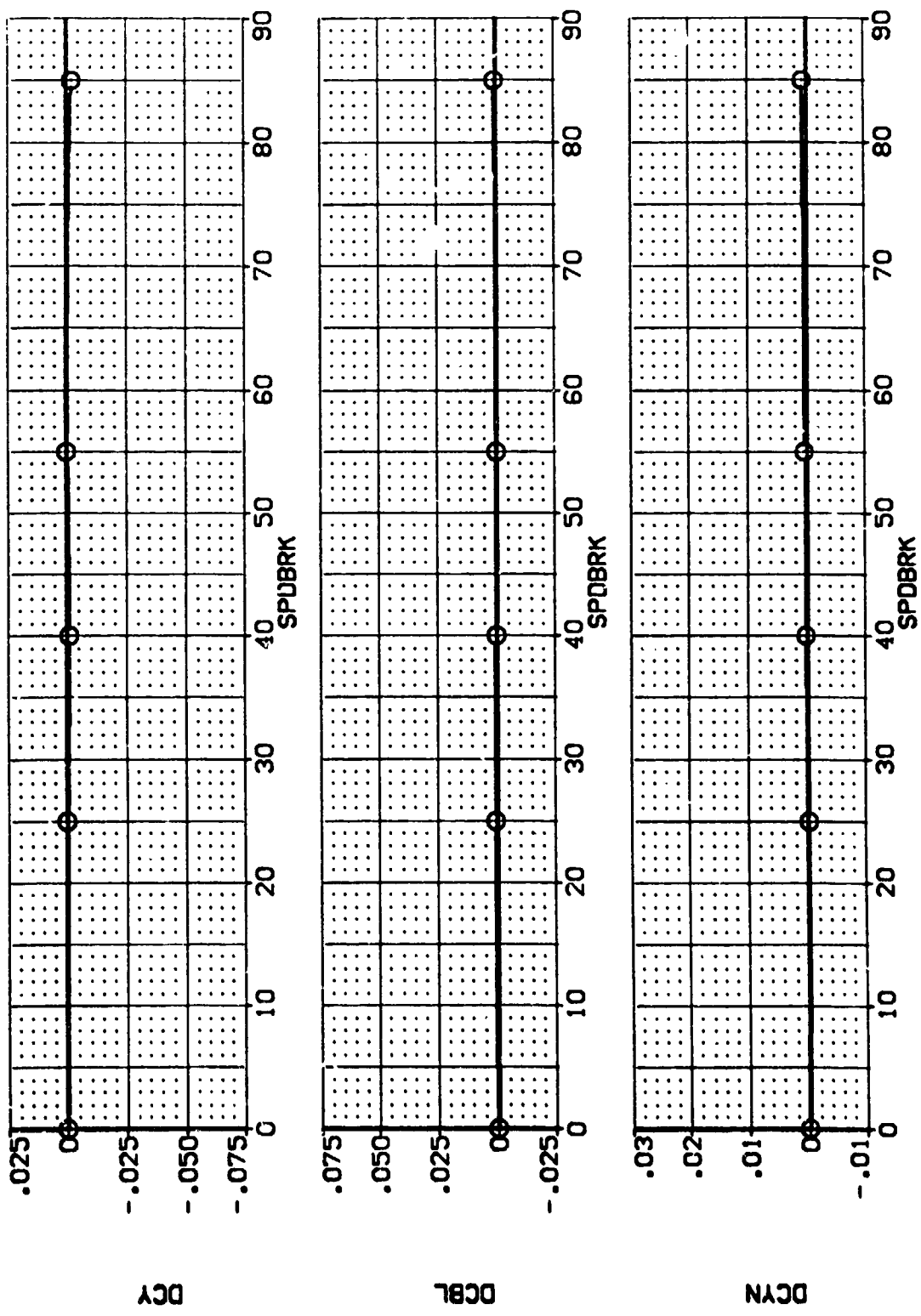


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



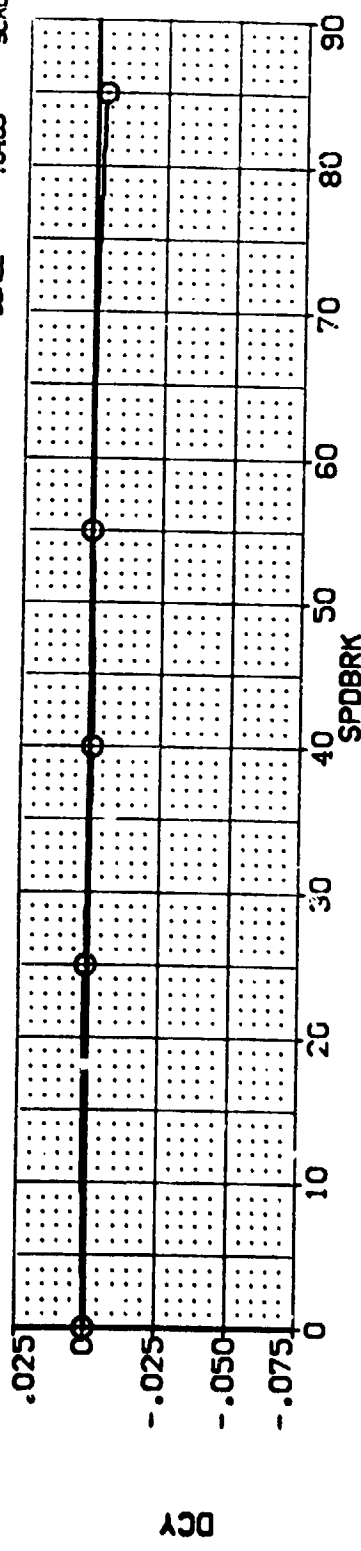


SYMBOL  
O

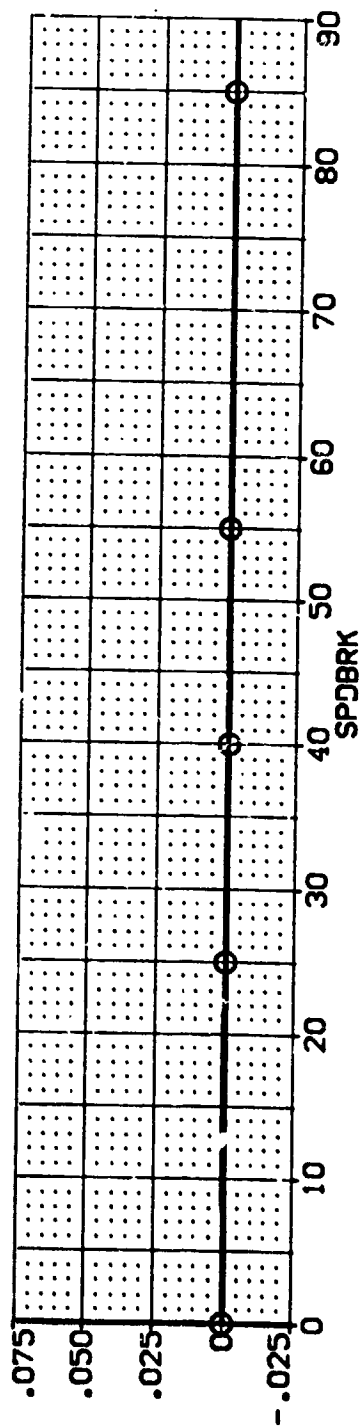


CA628 B26C9 M7F8 W116E28V8R5X9 (G0Z2228)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
ALPHA	10.000	MACH	.000	DATASET	SPOBRK	SREF	52.4119
BOFLAP	.200	DELVON	.000	G0Z228	.000	LREF	19.2259
RUDDER	-12.000	AILRON	.000	G0Z138	40.000	BREF	37.9359
R-LRAD	.000	BETA	.000	G0Z144	65.000	XMRP	43.5874
						YMRP	.0000
						ZMRP	15.1875
						SCALE	.0405



DCBL



DCYN

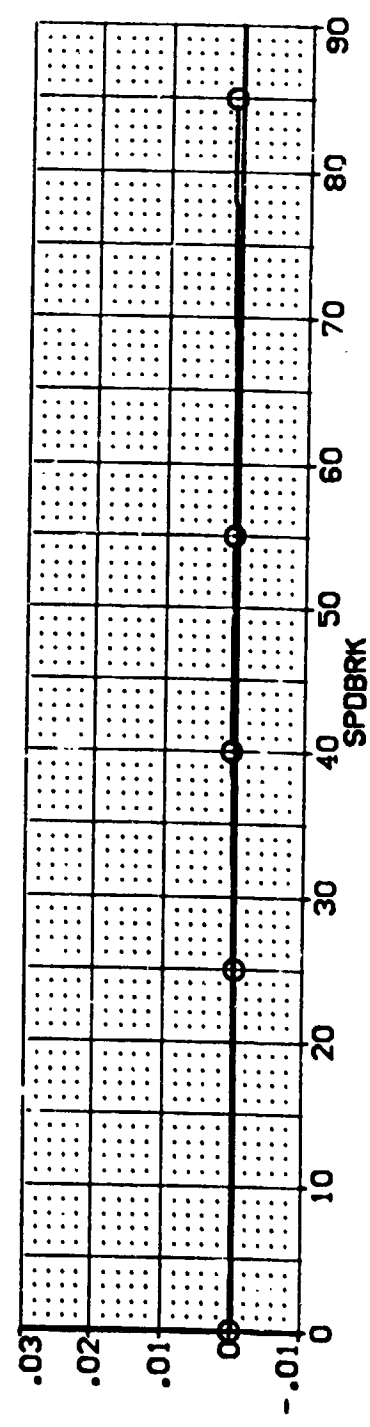


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

SYMBOL ALPHA 12.000 MACH 80FLAP -12.000 DELVON .000 DATASET .000 SPDBRK .000  
 RUDDER .000 BETA .000 DATASET .000 SPDBRK .000  
 RLRAD .000 DATASET .000 SPDBRK .000  
 (G0Z228)

REFERENCE INFORMATION  
 SQ. FT. 4.4119  
 INCHES 19.2258  
 INCHES 37.9359  
 INCHES 43.5971  
 INCHES .0000  
 INCHES 15.1873  
 SCALE .0405

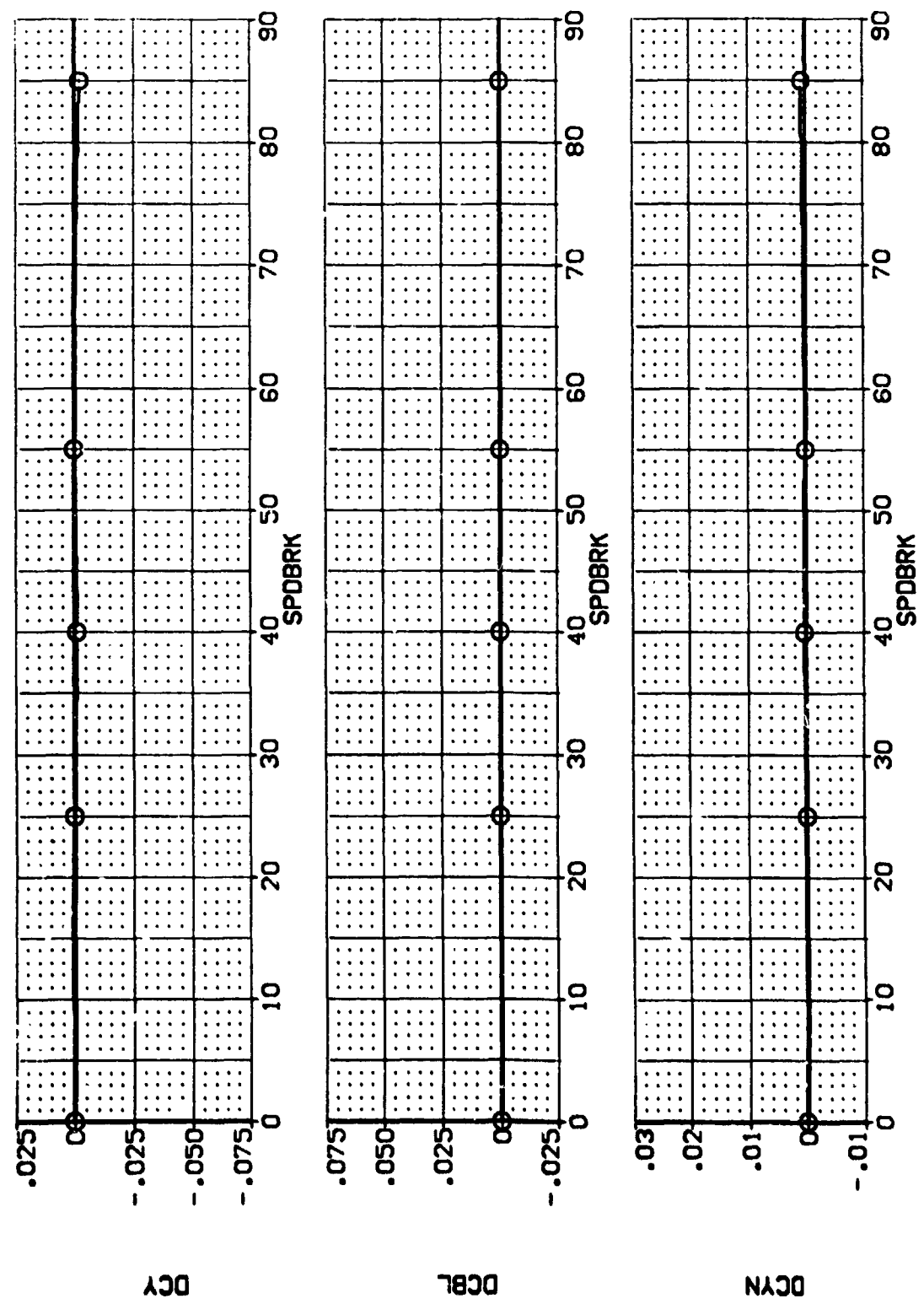


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



06'18 826C9 M7F8 W116E28V8R5X9 (G0Z228)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	14.000	.000	SPDBRK	SREF	4.4119
DELTA	.200	.000	SPDBRK	LREF	19.2299
DELTA	-12.000	.000	SPDBRK	BREF	37.9359
DELTA	.000	.000	SPDBRK	XPRP	43.5974
DELTA	.000	.000	SPDBRK	YPRP	.0000
DELTA	.000	.000	SPDBRK	ZPRP	15.1875
DELTA	.000	.000	SPDBRK	SCALE	.0405

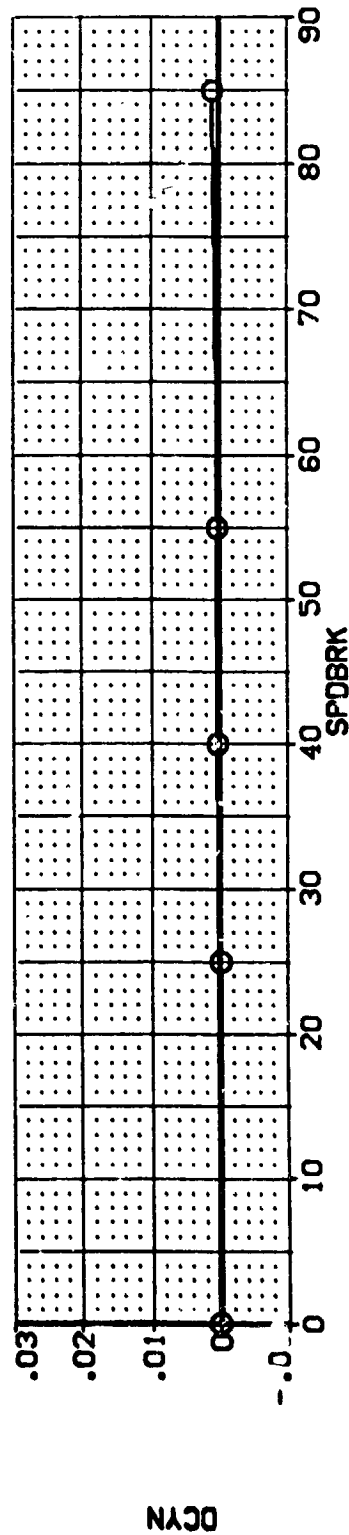
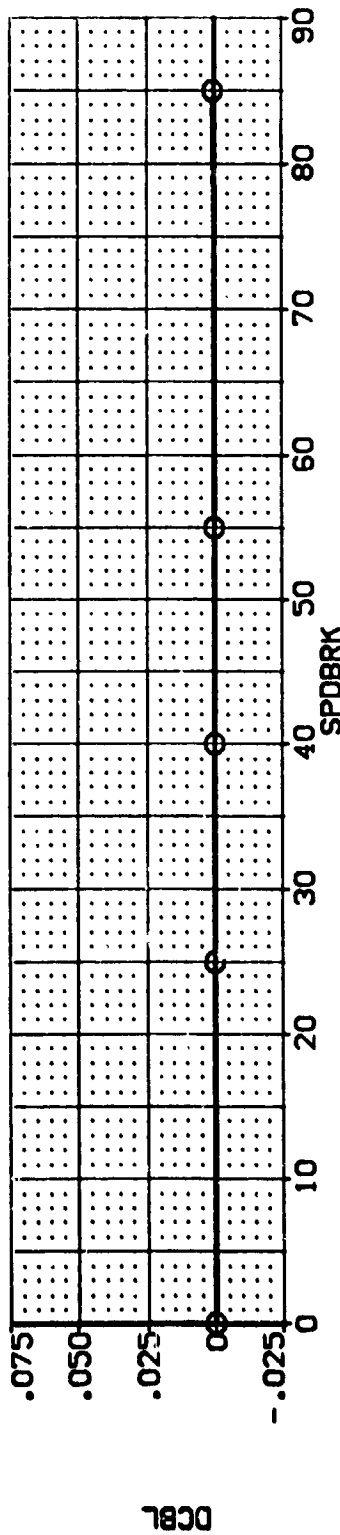
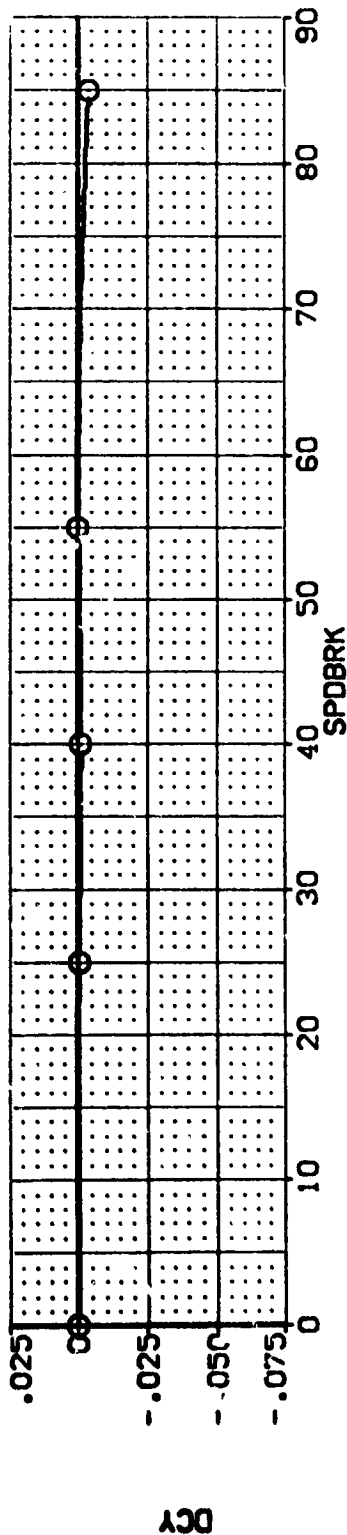


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A62B B26C9 M7F8 W116E28V8R5X9 (G0Z228)  
 SYMBOL ALPHA MACH MACH BD-FLAP RUDDER R-FLAP  
 O 15.000 .200 DELVEN -12.000 AILRON BETA  
 .000 .000 .000 .000 .000 .000  
 DATA SOURCE DATASET SPDBRK SREF  
 .000 G0Z228 .000 G0Z152 25.000  
 .000 G0Z138 40.000 G0Z336 55.000  
 .000 G0Z144 65.000  
 REFERENCE INFORMATION  
 4.4119 SQ.FT.  
 19.2259 INCHES  
 37.9359 INCHES  
 43.5974 INCHES  
 .0000 INCHES  
 15.1875 INCHES  
 .0405 SCALE

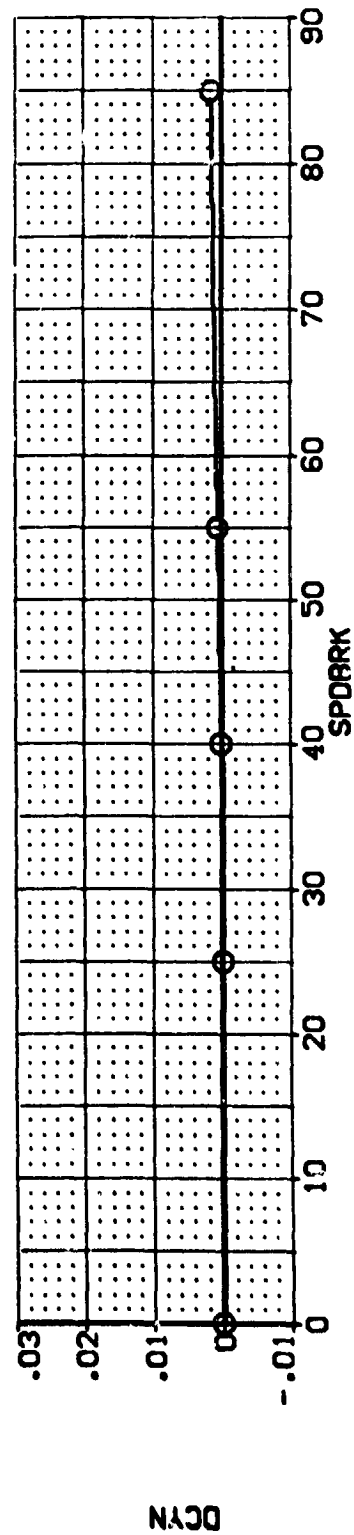
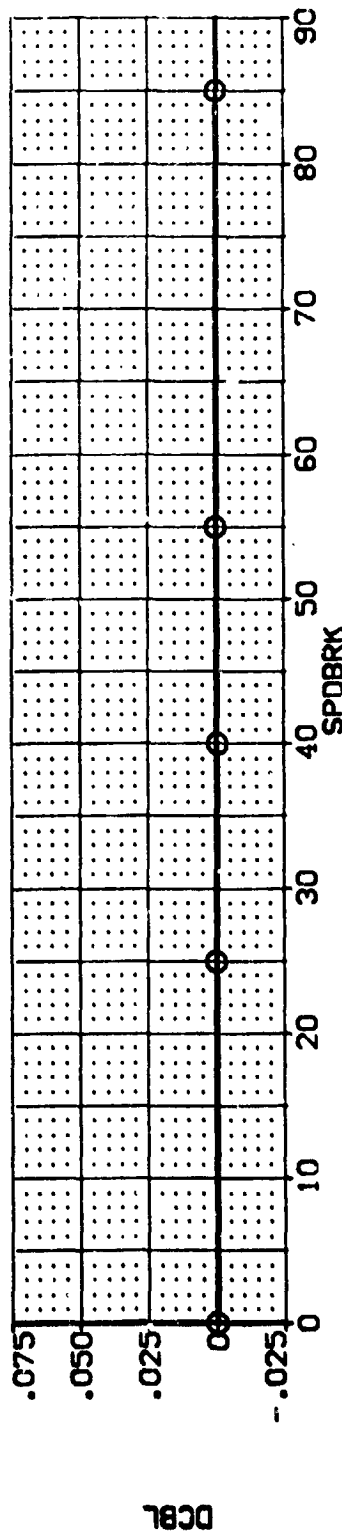
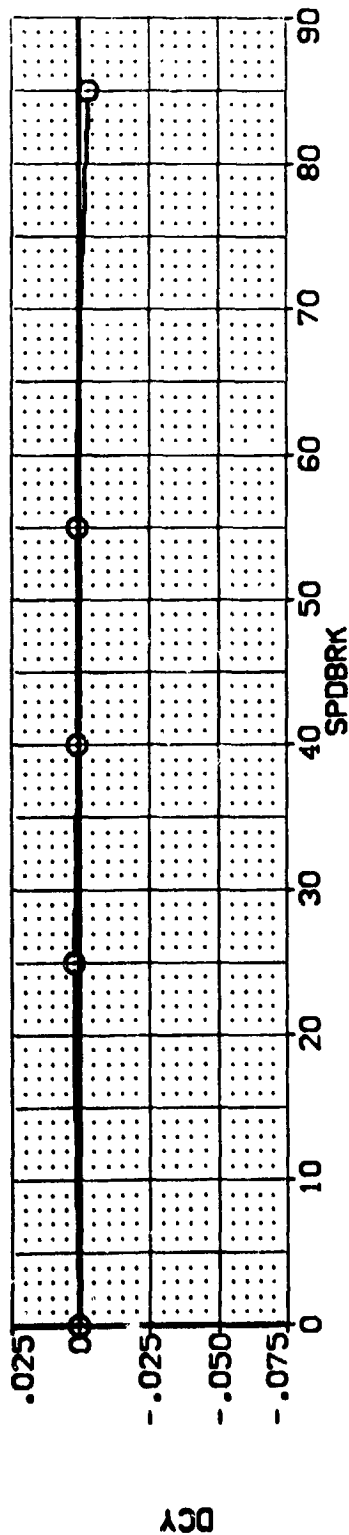


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)  
 SYMBOL ALPHA 18.000 HIGH 80 LAP 12.000 DELVEN .000 DATASET SPDBRK DATASET SPDBRK REFERENCE INFORMATION  
 0 18.000 -12.000 AILRON .000 G0Z228 .000 G0Z152 25.000 LREF 4.4119 SQ.FT.  
 RUDDER .000 BETA .000 G0Z138 40.000 BREF 19.2289 INCHES  
 RLRAD .000 .000 G0Z144 65.000 YPRP 37.9353 INCHES  
 15.1875 INCHES  
 SCALE .0405

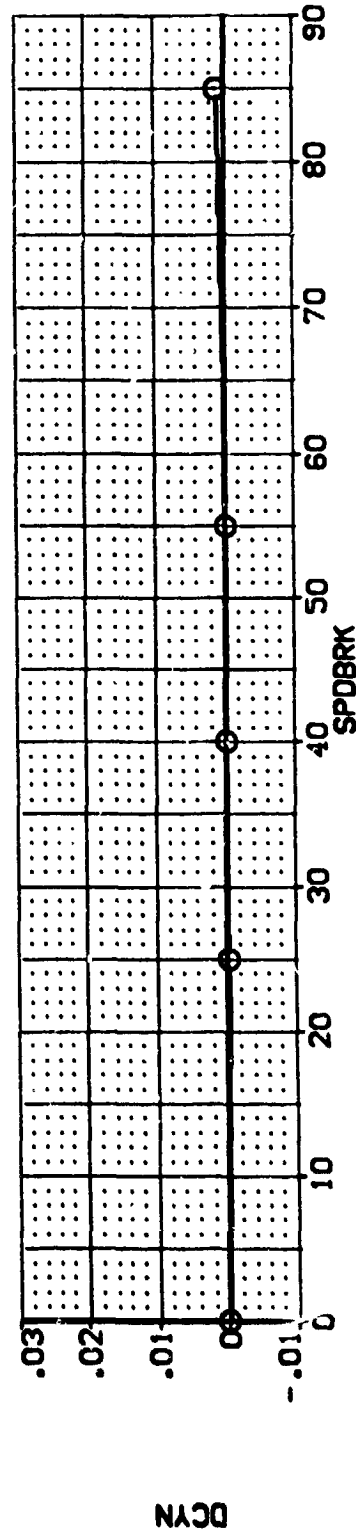
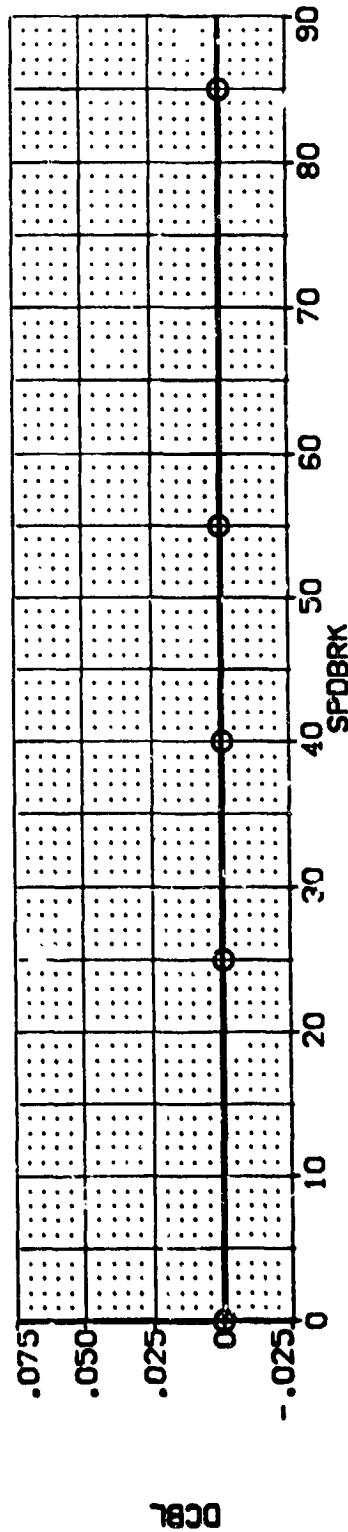
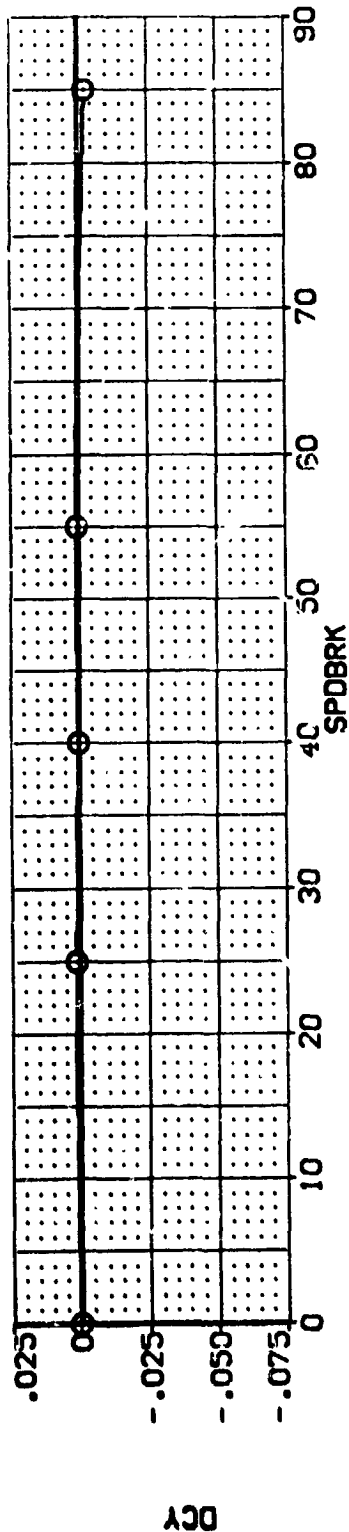


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(G0Z228)

GA628 B26C9 17F8 W116E28V8R5X9

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFE	ANCE INFORMATION
0	20.000	MACH .200	DELTON	SPDRK	SC.FT.
		BDFLAP -12.000	AILRON	LREF	INCHES
		RUDDER .000	BETA	G0Z152	INCHES
		R-LRAD .000		G0Z336	INCHES
				YMRP	INCHES
				ZMRP	INCHES
				SCALE	SCALE
					15.1875
					.0405

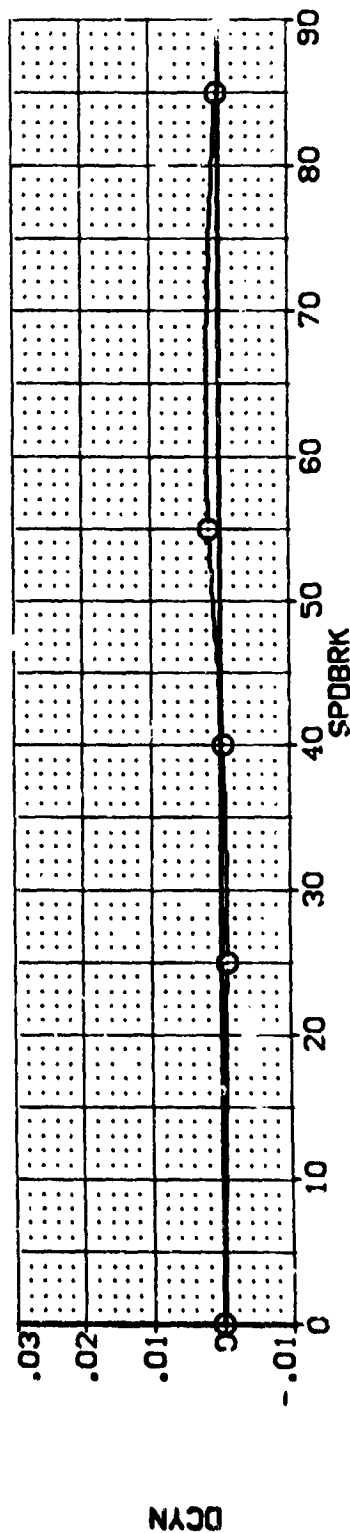
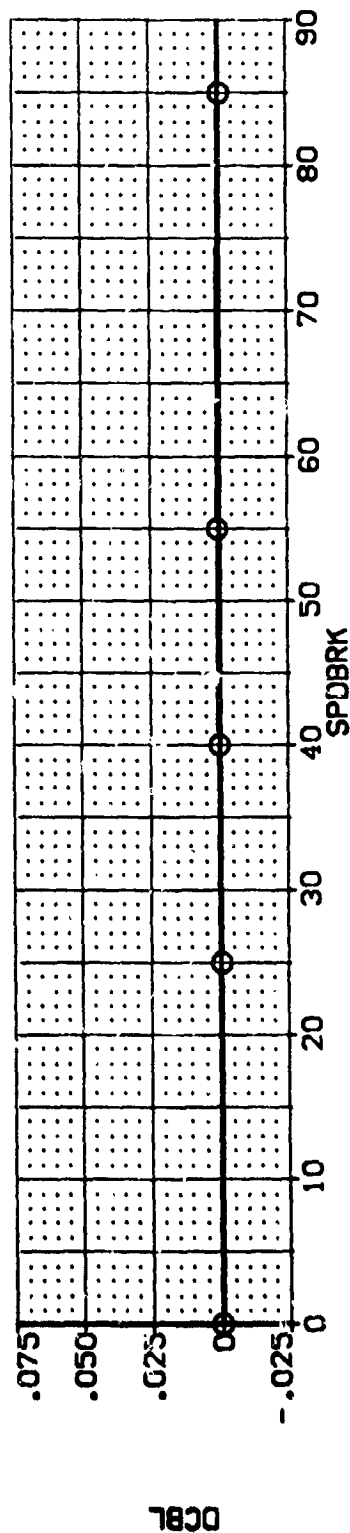
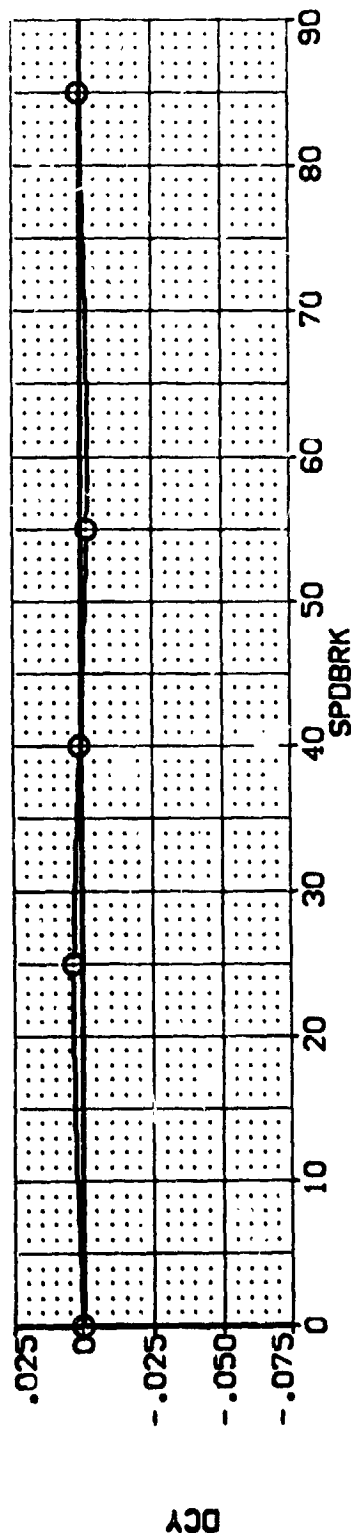


FIG 53 EFFECT OF VERTICAL TAIL FLARE / ANGLE, RUDDER = 0, BETA = 0

C-9

0A628 B26C9 M7F8 W116E28V8R5X9 (G0Z228)

SYMBOL	ALPHA	HIGH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	22.000	SOFLAP	.200 DELVON	SPDBRK	92.4118
		RUDDER	-12.000 AILRON	DATASET	19.2289
		R-LRAD	.000 BETA	G0Z152	37.5359
			.000	G0Z336	43.5974
			.000		15.1875
			.000		SCALE
			.000		SCALE

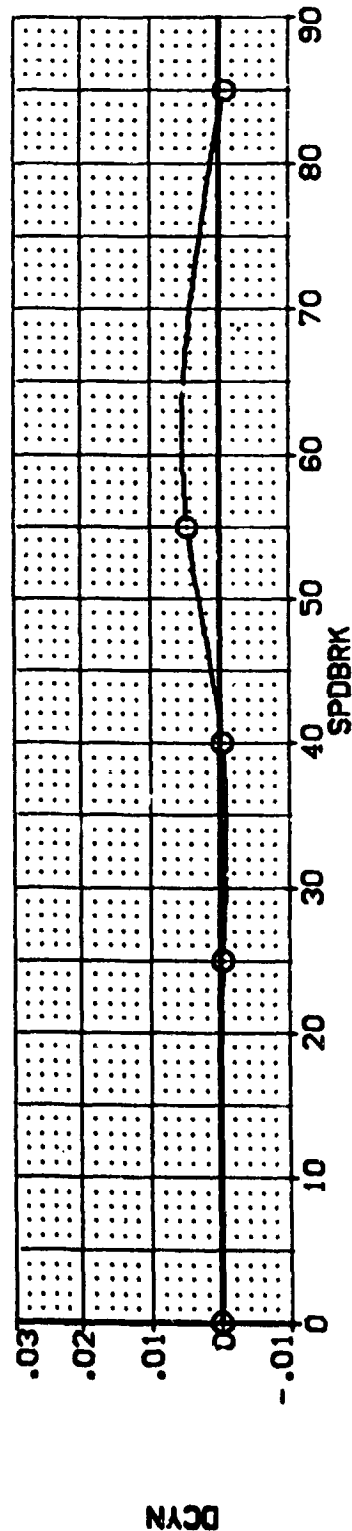
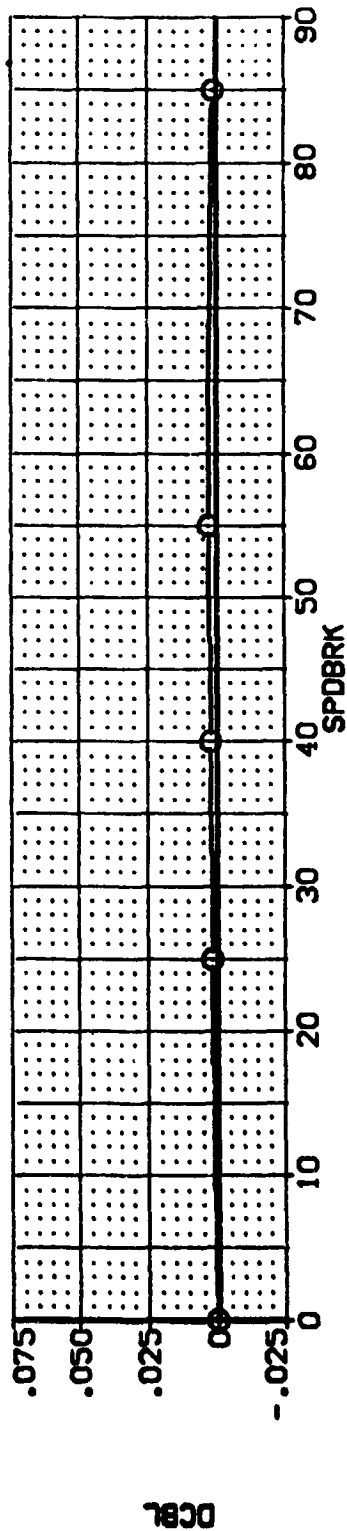
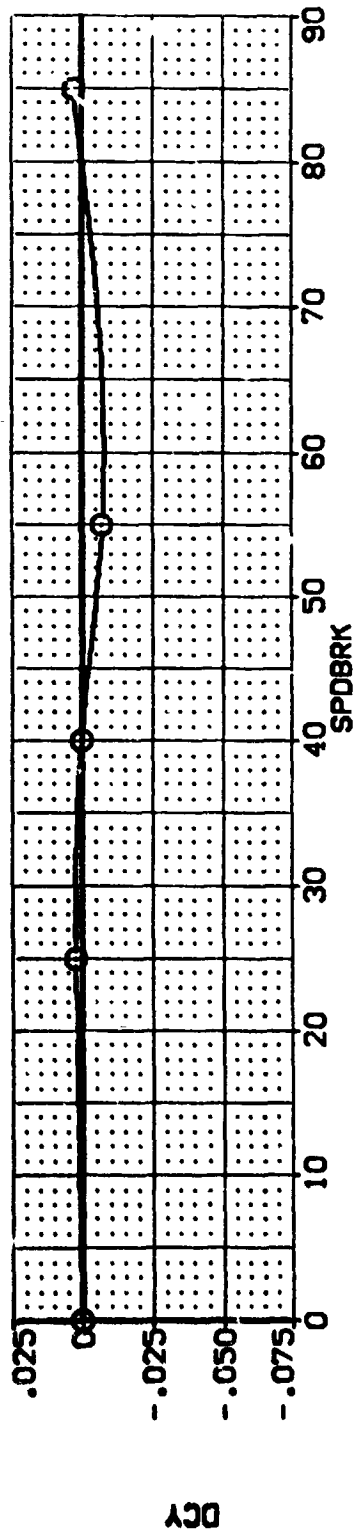


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

**(GD228)**

REFERENCE INFORMATION	
GREF	4.4118
LREF	19.2259
SRF	37.9359
XPAP	43.5574
YMAP	.0000
ZMAP	15.1875
SCALE	.0405
SO.FY:	INCHES
INCHES	INCHES
INCHES	INCHES
INCHES	INCHES
INCHES	INCHES
SCALE	SCALE

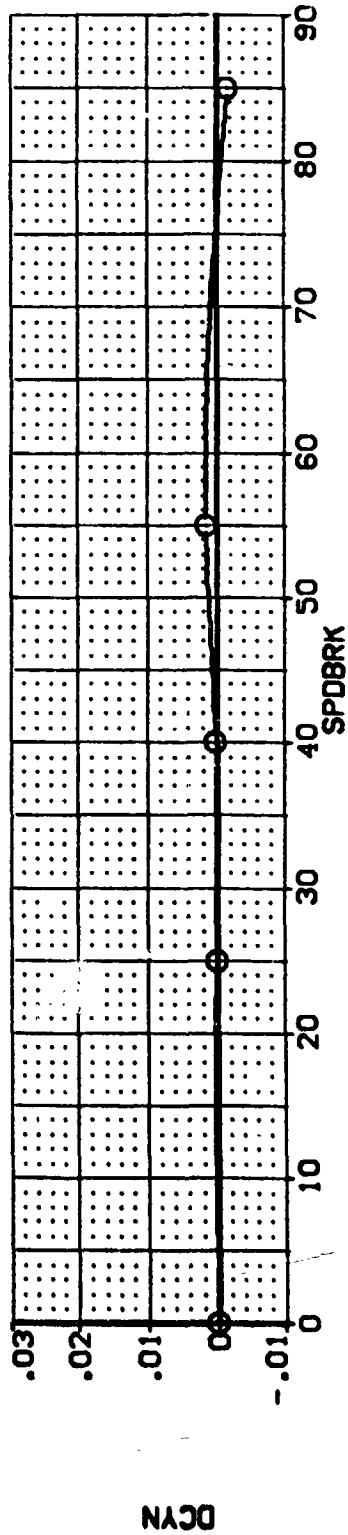
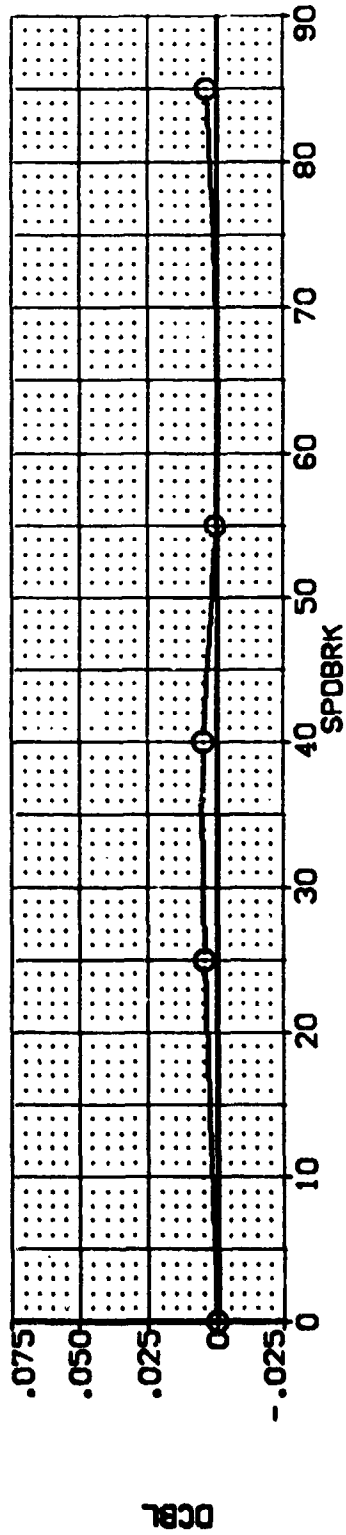
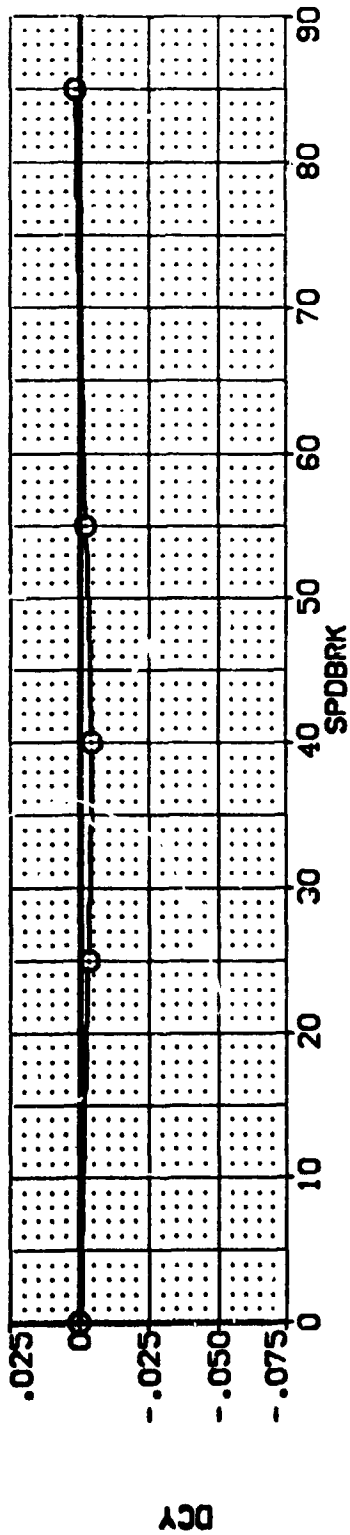


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0



**0A628 B26C9**

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA		SPORBK	DATASET	SPORBK	DATASET
28.000	WACH	.000	.000	4.4119	50. FT.
	BDFLAP	.000	G0Z228	19.7253	INCHES
	BLUDD	.000	G0Z138	37.5359	INCHES
	BETA	.000	G0Z144	43.5974	INCHES
	RS-URNO	.000		15.1875	INCHES
				.0405	SCALE

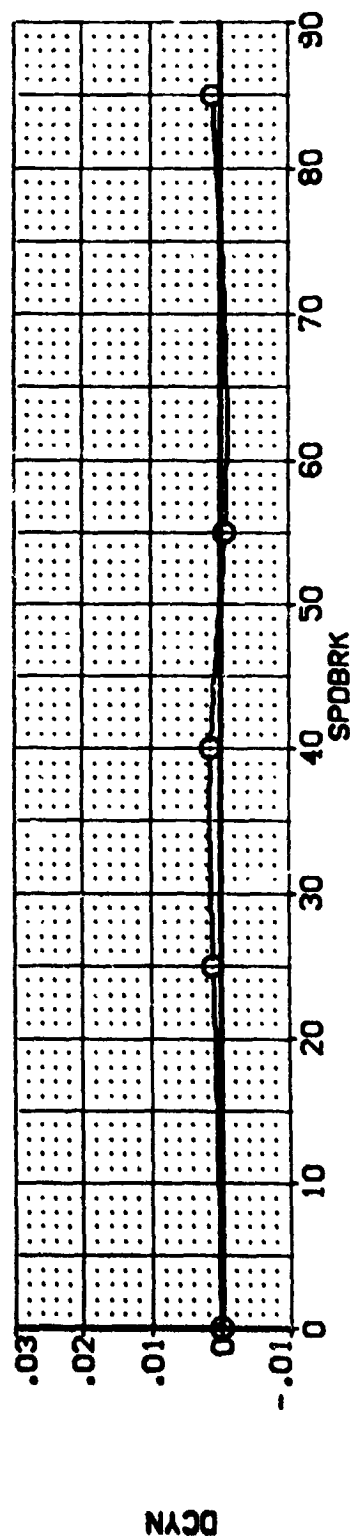
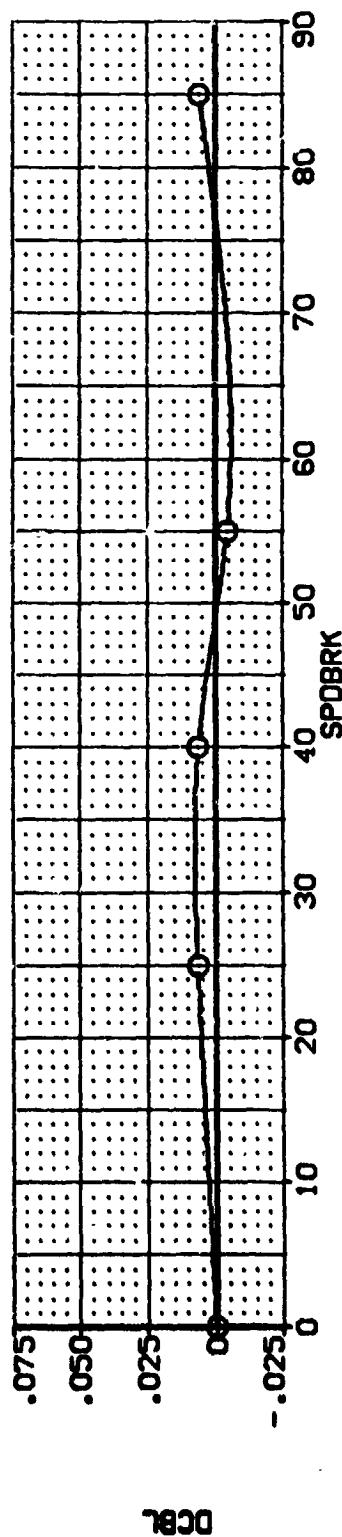
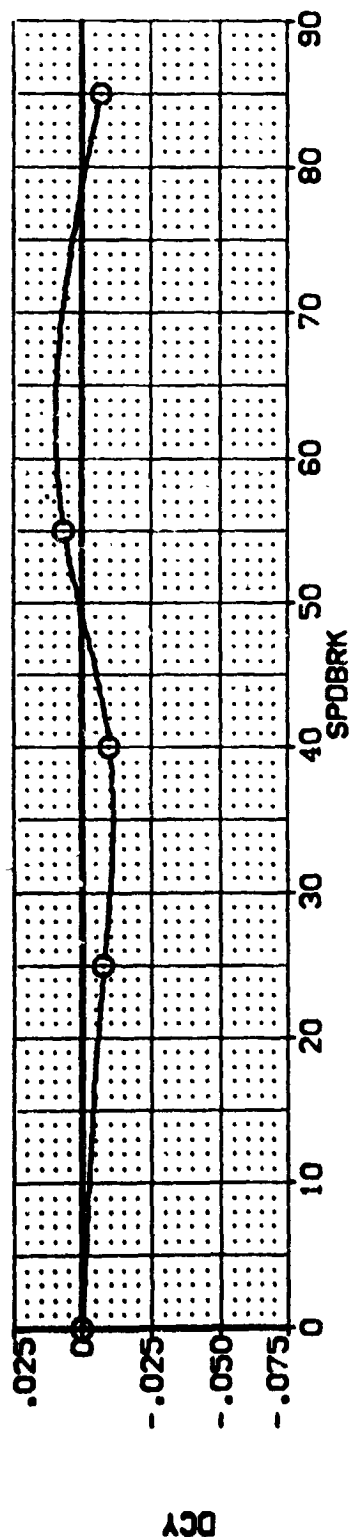


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

**2000**

FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

(G02228)

0A628 B26C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	30.000	W001	DELTA	REF	50.000
BETA	-12.000	W001	DELTA	REF	19.2259
RUDDER	.000	W001	DELTA	REF	37.5359
ROLLING	.000	W001	DELTA	REF	43.5974
			DELTA	REF	15.1875
			DELTA	REF	.0405

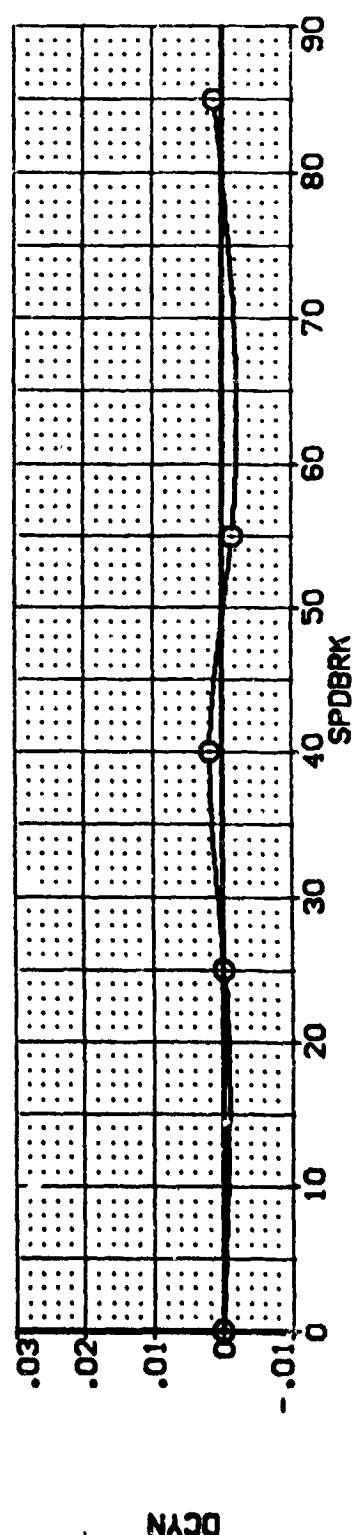
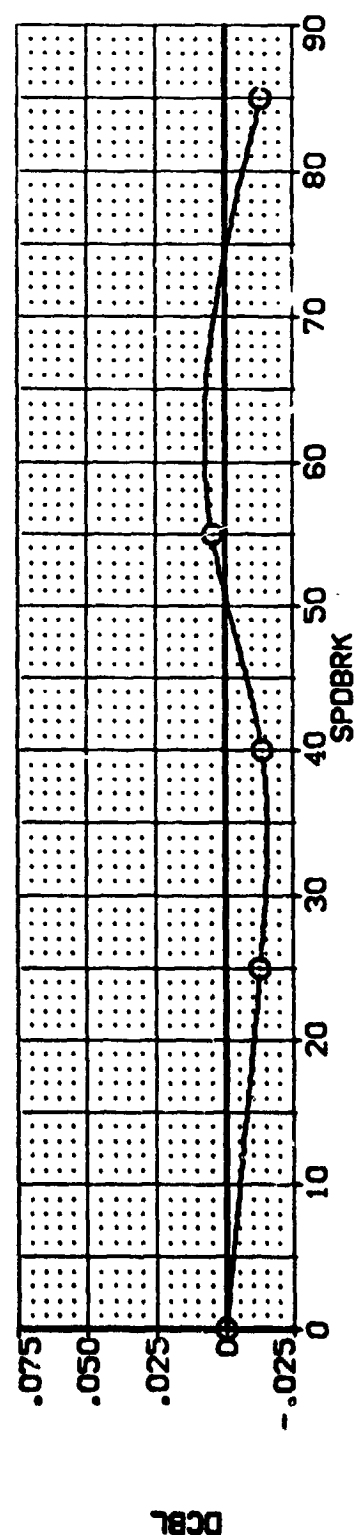
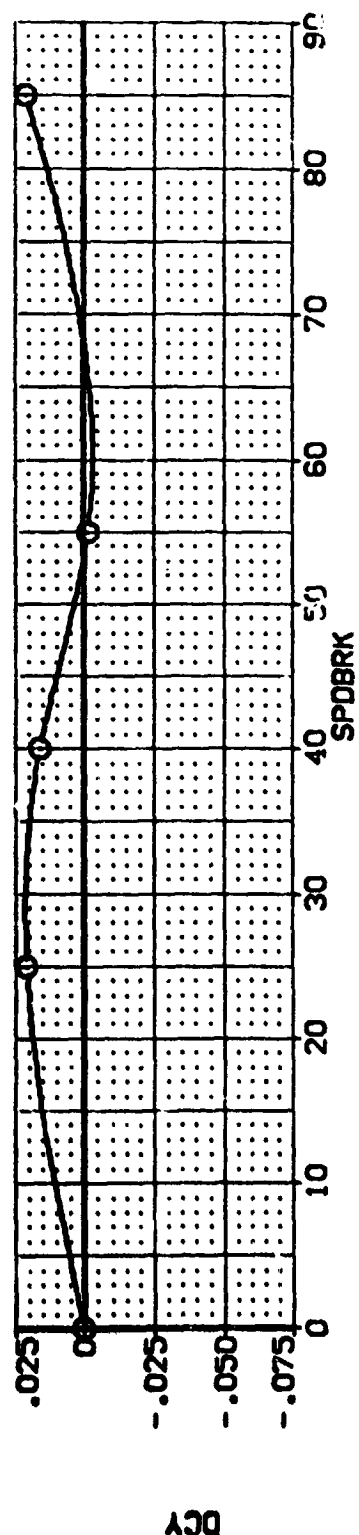


FIG 53 EFFECT OF VERTICAL TAIL FLARE ANGLE, RUDDER = 0, BETA = 0

REFERENCE INFORMATION	
GREF	4.4118
LINE	19.2259
GREF	37.9359
XPRP	43.5974
YPRP	.0000
ZPRP	15.1675
SCALE	.0405

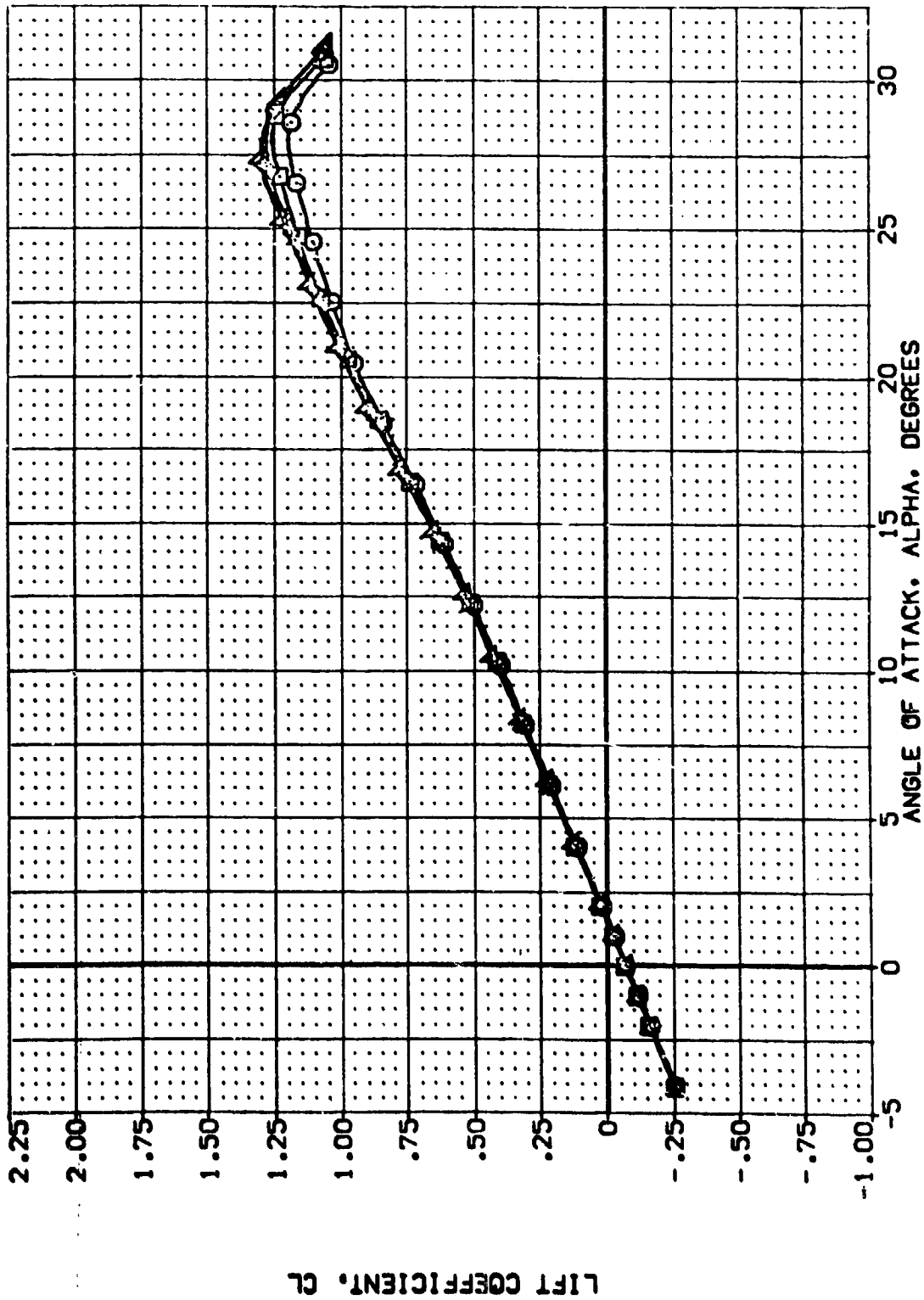


FIG 54 EFFECT OF REYNOLDS NO. ON LONGITUDINAL STABILITY,  $ELEVON = 0$ , 25 FLARE  
MACH = .12 PAGE 680

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	MAF	ELEVON	EDFLAP	SPORX	REFERENCE INFORMATION
{00Z154}	W78 V116Z20V63	1.00	.000	-12.000	23.000	4.4119 80.00
{00Z155}	W78 V116Z20V63	1.160	.000	-12.000	23.000	19.2259 10.00
{00Z156}	W78 V116Z20V63	1.420	.000	-12.000	23.000	37.9359 10.00
{00Z157}	W78 V116Z20V63	1.650	.000	-12.000	23.000	43.5974 10.00
{00Z158}	W78 V116Z20V63	1.850	.000	-12.000	23.000	15.1873 10.00
{00Z159}	W78 V116Z20V63	1.850	.000	-12.000	23.000	15.1873 10.00
						SCALE .0405

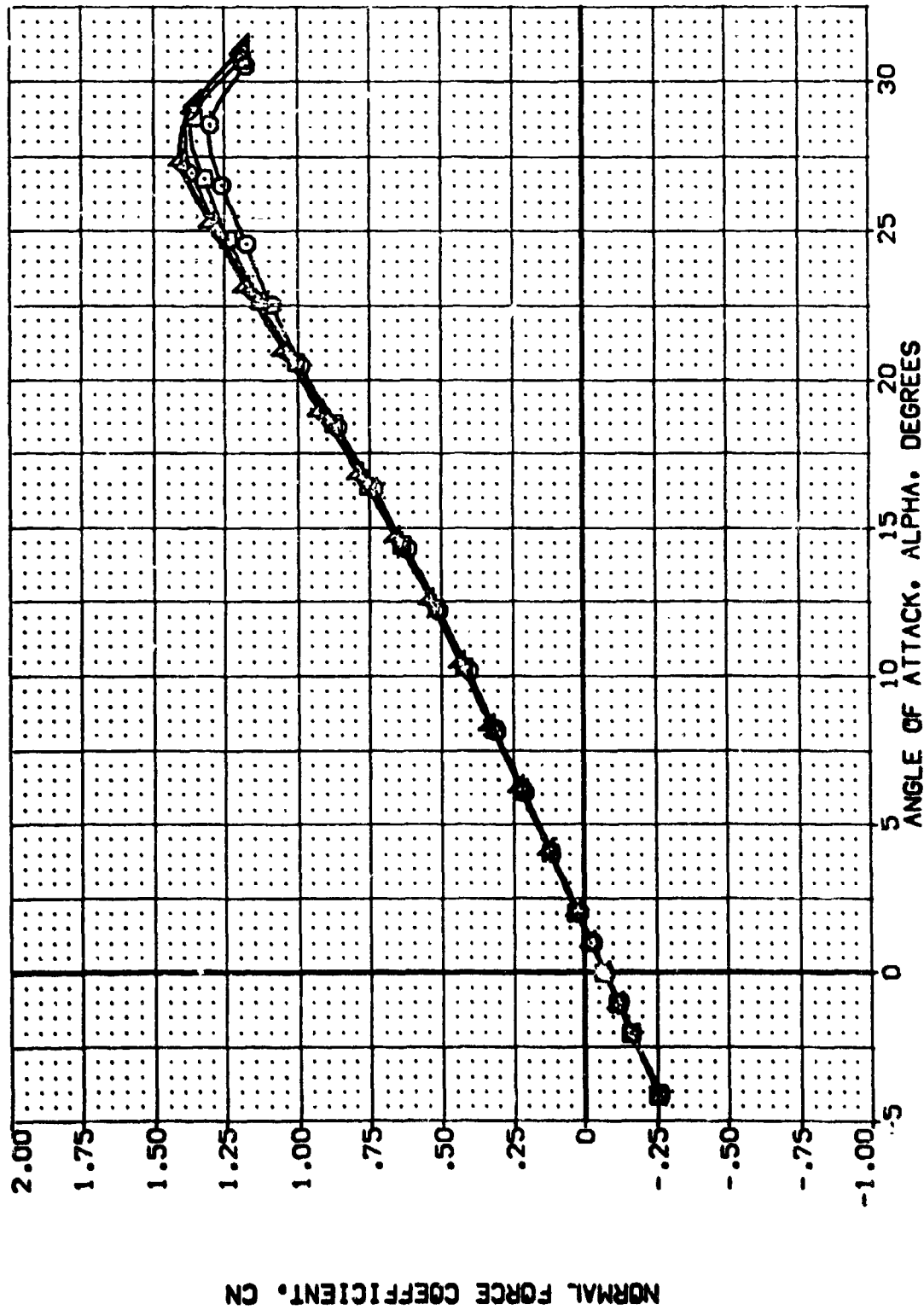


FIG 54 EFFECT OF REYNOLDS NO. ON LONGITUDINAL STABILITY, ELEVON = 0. 25 FLARE  
 (A)MACH = .12 PAGE 681

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUFT	ELEVON	BD/LAP	SPDRBK	REFERENCE INFORMATION
{B0Z154}	0A528 B05C9 M7F8 V116E28V85X9	.820	.000	-12.000	25.000	SREF 4.4119 SQ. FT.
{B0Z153}	0A528 B05C9 M7F8 V116E28V85X9	1.180	.000	-12.000	25.000	LRUF 19.2299 INCHES
{B0Z152}	0A528 B05C9 M7F8 V116E28V85X9	1.420	.000	-12.000	25.000	BRUF 37.5369 INCHES
{B0Z151}	0A528 B05C9 M7F8 V116E28V85X9	1.650	.000	-12.000	25.000	XRRP 43.5974 INCHES
{B0Z150}	0A528 B05C9 M7F8 V116E28V85X9	1.850	.000	-12.000	25.000	ZRRP 15.1875 INCHES
						SCALE .0405

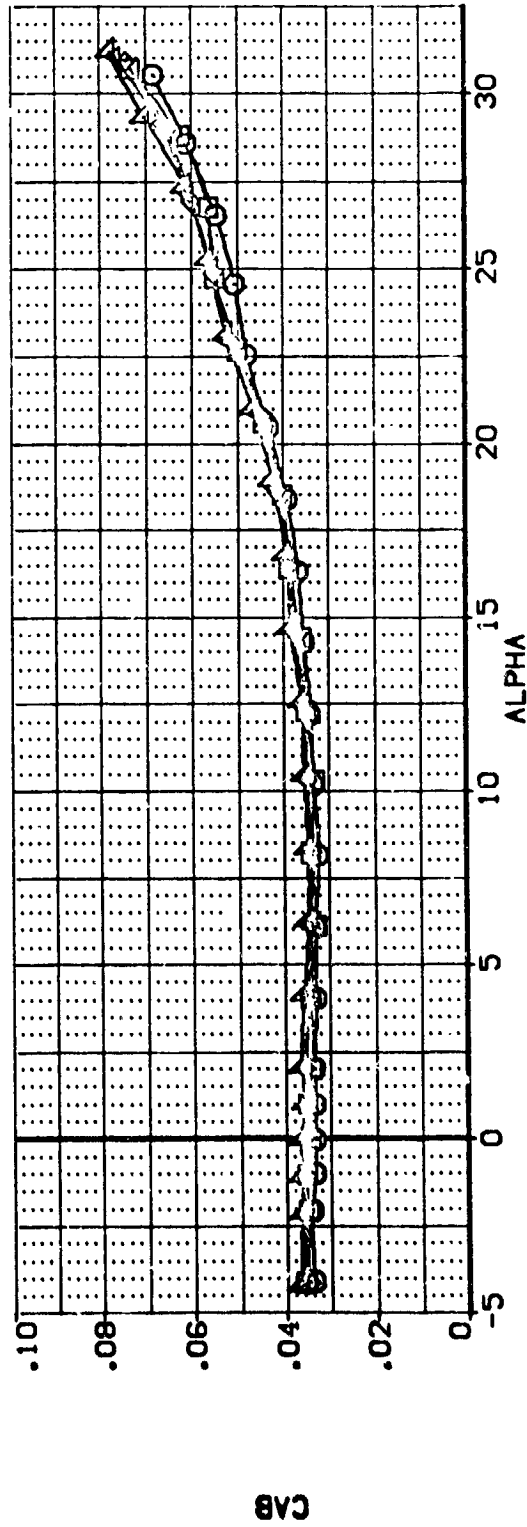
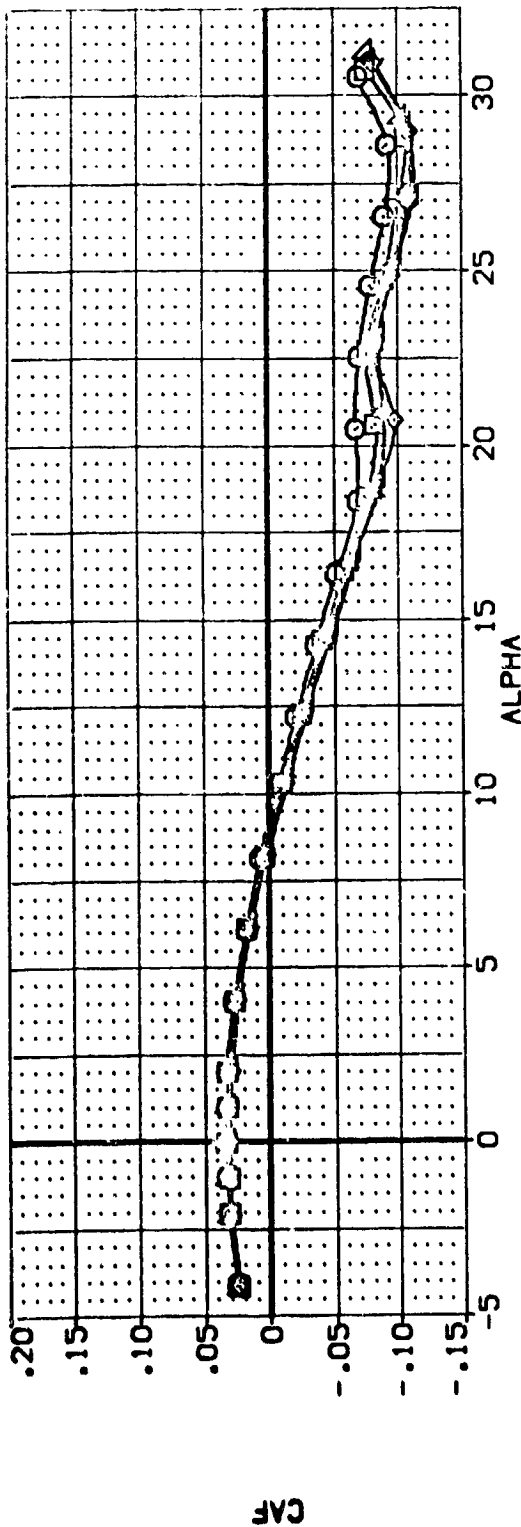


FIG 54 EFFECT OF REYNOLDS NO. ON LONGITUDINAL STABILITY, ELEVON = 0, 25 FLARE  
 (MACH = .12) PAGE 682

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RMFT	ELEVON	EDFLAP	SPDRBK	REFERENCE INFORMATION
{B0Z154}	04528 B05C3 M7F8 V116E28V8F5X9	.830	.000	-12.000	25.000	SREF 4.4119 SQ.FT.
{B0Z155}	04528 B05C3 M7F8 V116E28V8F5X9	1.160	.000	-12.000	25.000	LREF 19.7259 INC-ES
{B0Z157}	04528 B05C3 M7F8 V116E28V8F5X9	1.420	.000	-12.000	25.000	BREF 37.9359 INC-ES
{B0Z151}	04528 B05C3 M7F8 V116E28V8F5X9	1.650	.000	-12.000	25.000	YMRP 43.5974 INC-ES
{B0Z150}	04528 B05C3 M7F8 V116E28V8F5X9	1.850	.000	-12.000	25.000	ZMRP .0000 INC-ES
						SCALE 15.1875 INC-ES
						SCALE .0405

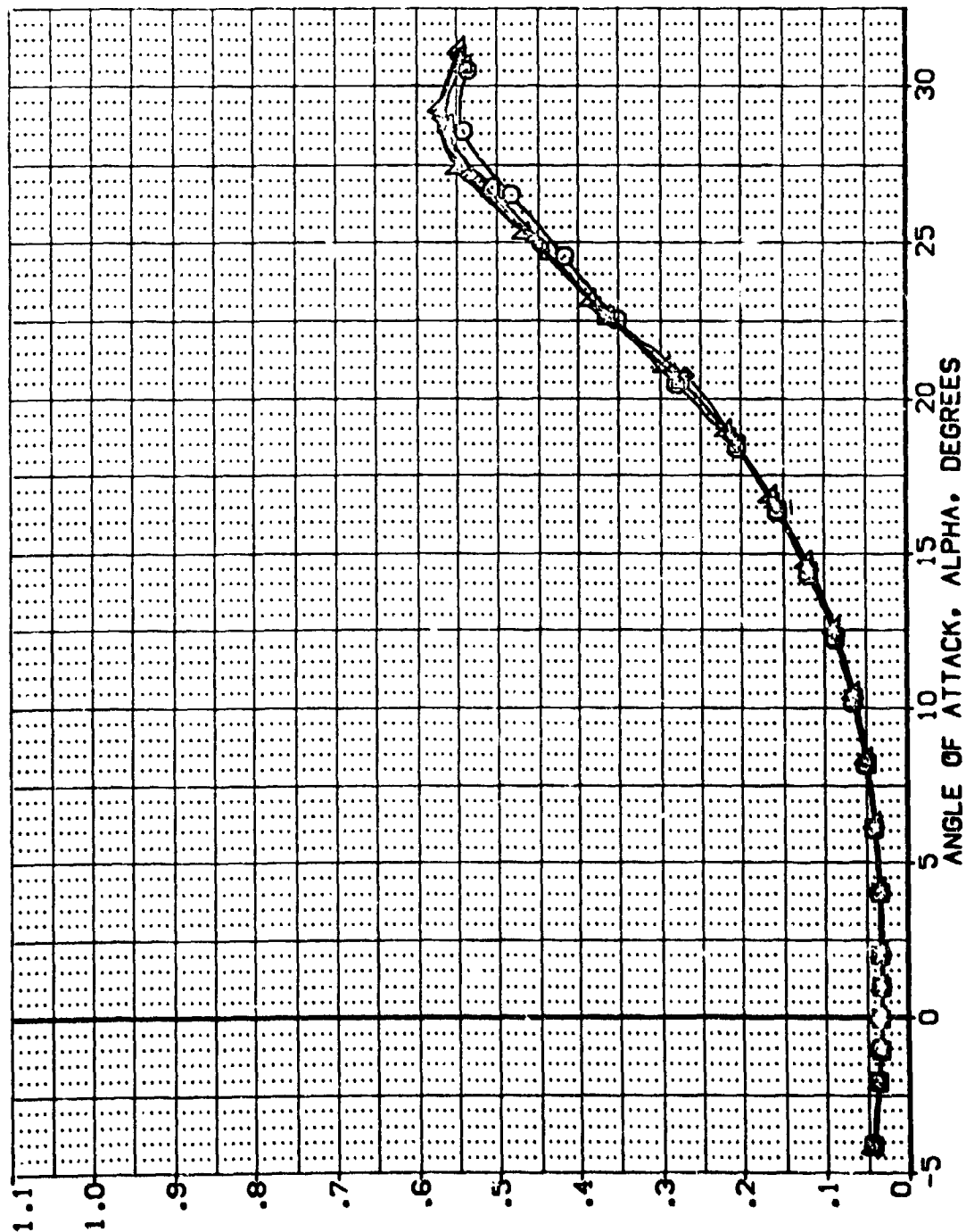


FIG 54 EFFECT OF REYNOLDS NO. ON LONGITUDINAL STABILITY, ELEVON = 0, 25 FLARE

CAMACH = .12

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUFT	ELEVON	BDCLAP	SPORRK	REFERENCE INFORMATION
(80Z154)	04528 826C3 M7F8 V116E28V85X9	.830	.000	-12.000	25.000	SREF 4.4119 50. FT.
(80Z153)	04528 826C3 M7F8 V116E28V85X9	1.180	.000	-12.000	25.000	LREF 19.2299 INCHES
(80Z152)	04528 826C3 M7F8 V116E28V85X9	1.420	.000	-12.000	25.000	BREF 37.9759 INCHES
(80Z151)	04528 826C3 M7F8 V116E28V85X9	1.650	.000	-12.000	25.000	XTRP 43.5574 INCHES
(80Z150)	04528 826C3 M7F8 V116E28V85X9	1.850	.000	-12.000	25.000	YTRP 15.0000 INCHES
						ZTRP 15.1875 INCHES
						SCALE .0405

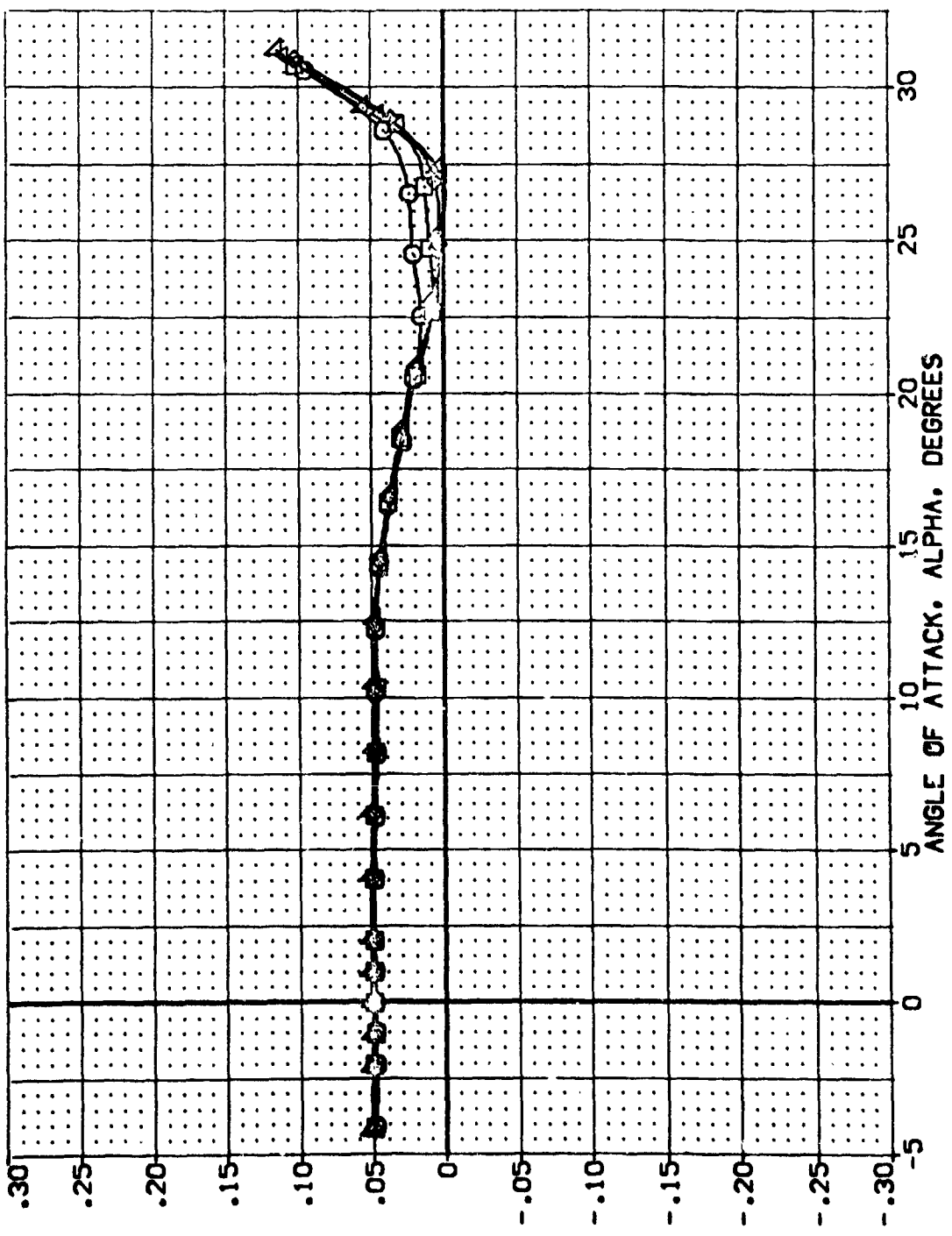


FIG 54 EFFECT OF REYNOLDS NO. ON LONGITUDINAL STABILITY, ELEVON = 0, 25 FLARE  
 (A)MACH = .12



# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(B07154) 3A628 B26C3 M78 V11628/8503  
 (B07153) 3A628 B26C3 M78 V11628/8503  
 (B07152) 3A628 B26C3 M78 V11628/8503  
 (B07151) 3A628 B26C3 M78 V11628/8503  
 (B07150) 3A628 B26C3 M78 V11628/8503

RVFT ELEVON BFLAP SPOBRK REFERENCE INFORMATION  
 .000 .000 -12.000 25.000 4.4119 50.47  
 1.180 .000 -12.000 25.000 19.2299 100.45  
 1.420 .000 -12.000 25.000 37.9359 100.45  
 1.650 .000 -12.000 25.000 43.5974 100.45  
 1.800 .000 -12.000 25.000 43.5974 100.45  
 1.875 15.1875 100.45

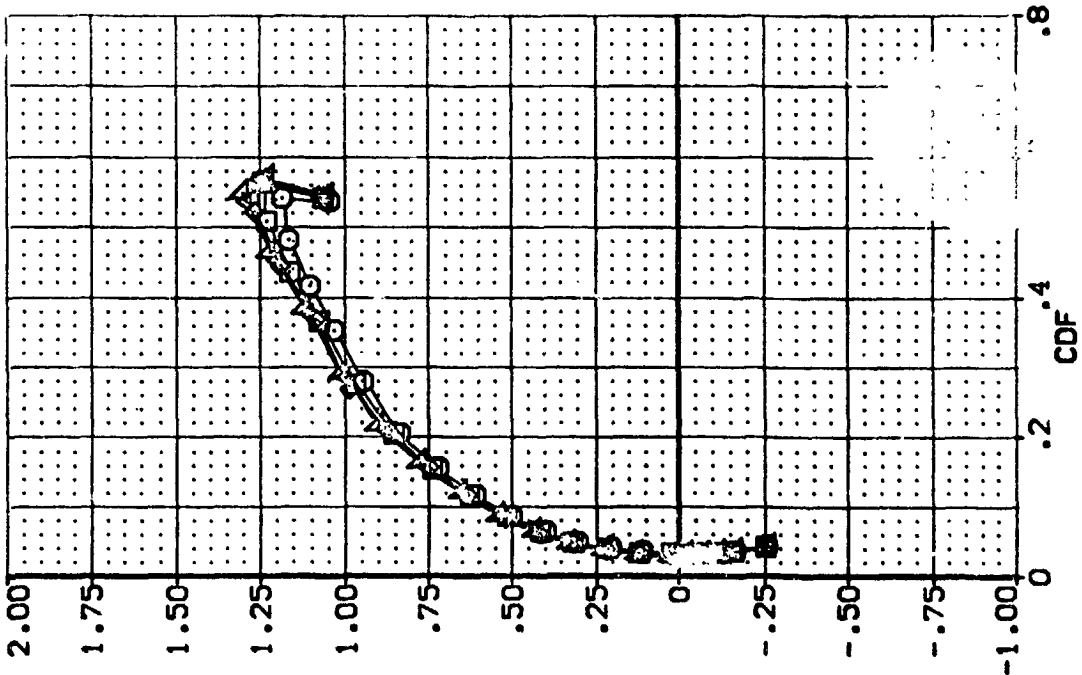
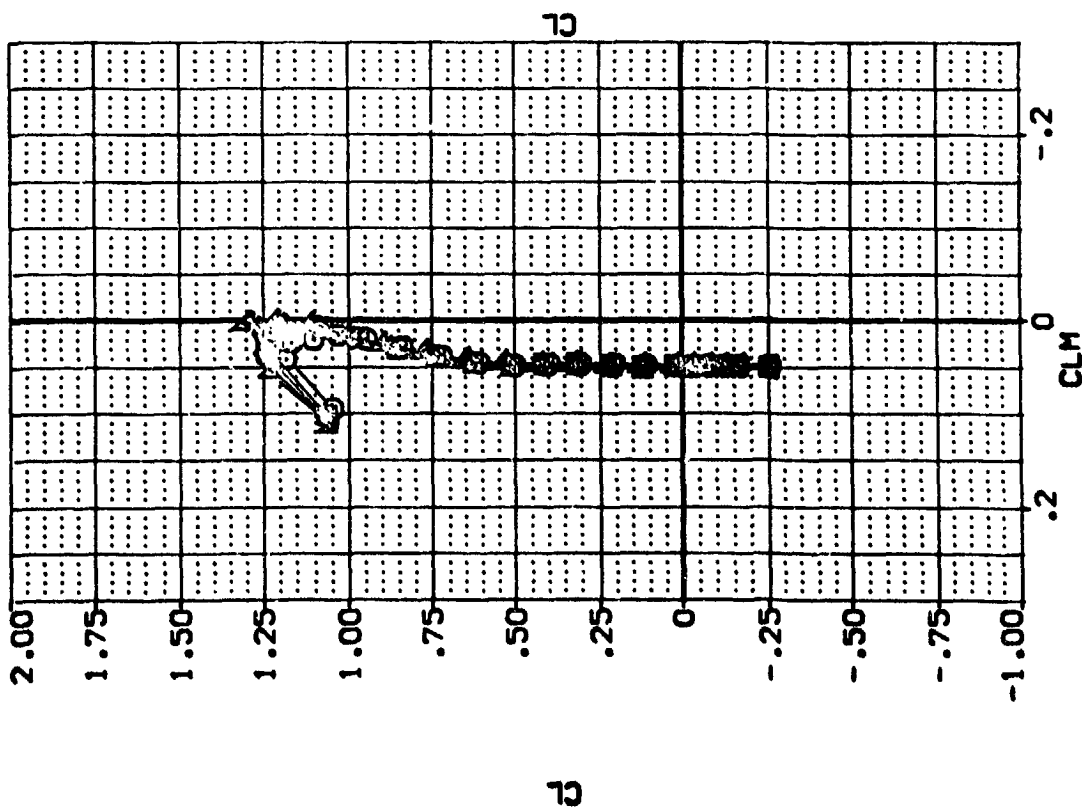


FIG 54 EFFECT OF REYNOLDS NO. ON LONGITUDINAL STABILITY, ELEVON = 0, 25 FLARE  
 (A)MACH = .12

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUFT	ELEVON	BOFLAP	SPOBRK	REFERENCE INFORMATION
{BZ154}	04628 826C9	.800	.000	-12.000	25.000	SREF 4.4119 50.FT.
{BZ153}	04628 826C9	1.180	.000	-12.000	25.000	LREF 19.2259 INCHES
{BZ152}	04628 826C9	1.420	.000	-12.000	25.000	BREF 37.9359 INCHES
{BZ151}	04628 826C9	1.650	.000	-12.000	25.000	YMRP 43.5974 INCHES
{BZ150}	04628 826C9	1.850	.000	-12.000	25.000	ZMRP 15.1875 INCHES
						SCALE .0405

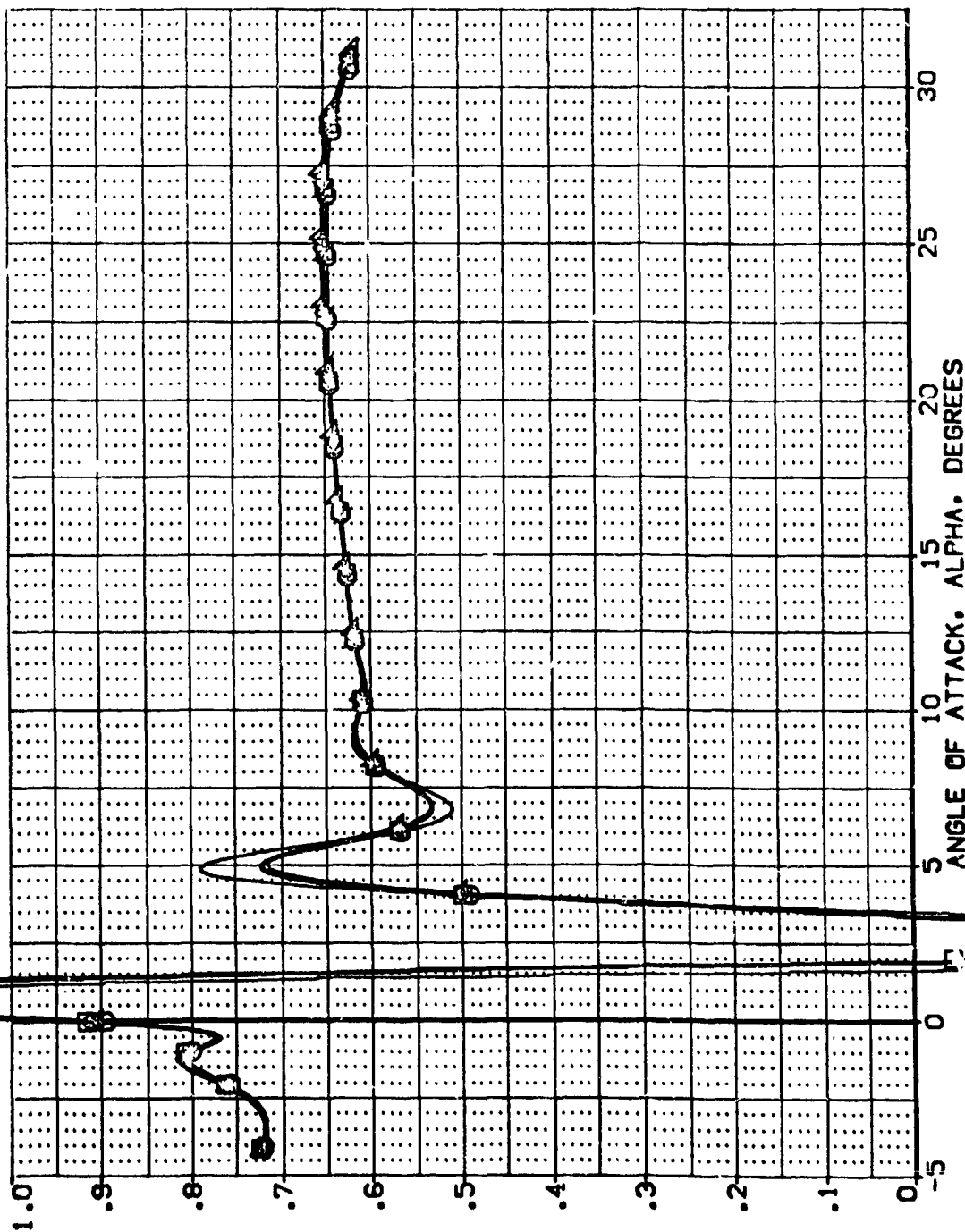


FIG 54 EFFECT OF REYNOLDS NO. ON LONGITUDINAL STABILITY, ELEVON = 0. 25 FLARE

(A)MACH = .12

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/FT	ELEVON	BOFLAP	SPDRBK	REFERENCE INFORMATION
[B0Z154]	04628 B28C3 M7F8 V116E28V8F5X9	.800	.000	-12.000	25.000	SREF 4.4119 50. FT.
[B0Z155]	04628 B28C3 M7F8 V116E28V8F5X9	1.180	.000	-12.000	25.000	LREF 19.2286 INCHES
[B0Z156]	04628 B28C3 M7F8 V116E28V8F5X9	1.420	.000	-12.000	25.000	BREF 37.5353 INCHES
[B0Z157]	04628 B28C3 M7F8 V116E28V8F5X9	1.650	.000	-12.000	25.000	XTRP 43.5574 INCHES
[B0Z158]	04628 B28C3 M7F8 V116E28V8F5X9	1.880	.000	-12.000	25.000	ZTRP 15.0000 INCHES
						SCALE .0405

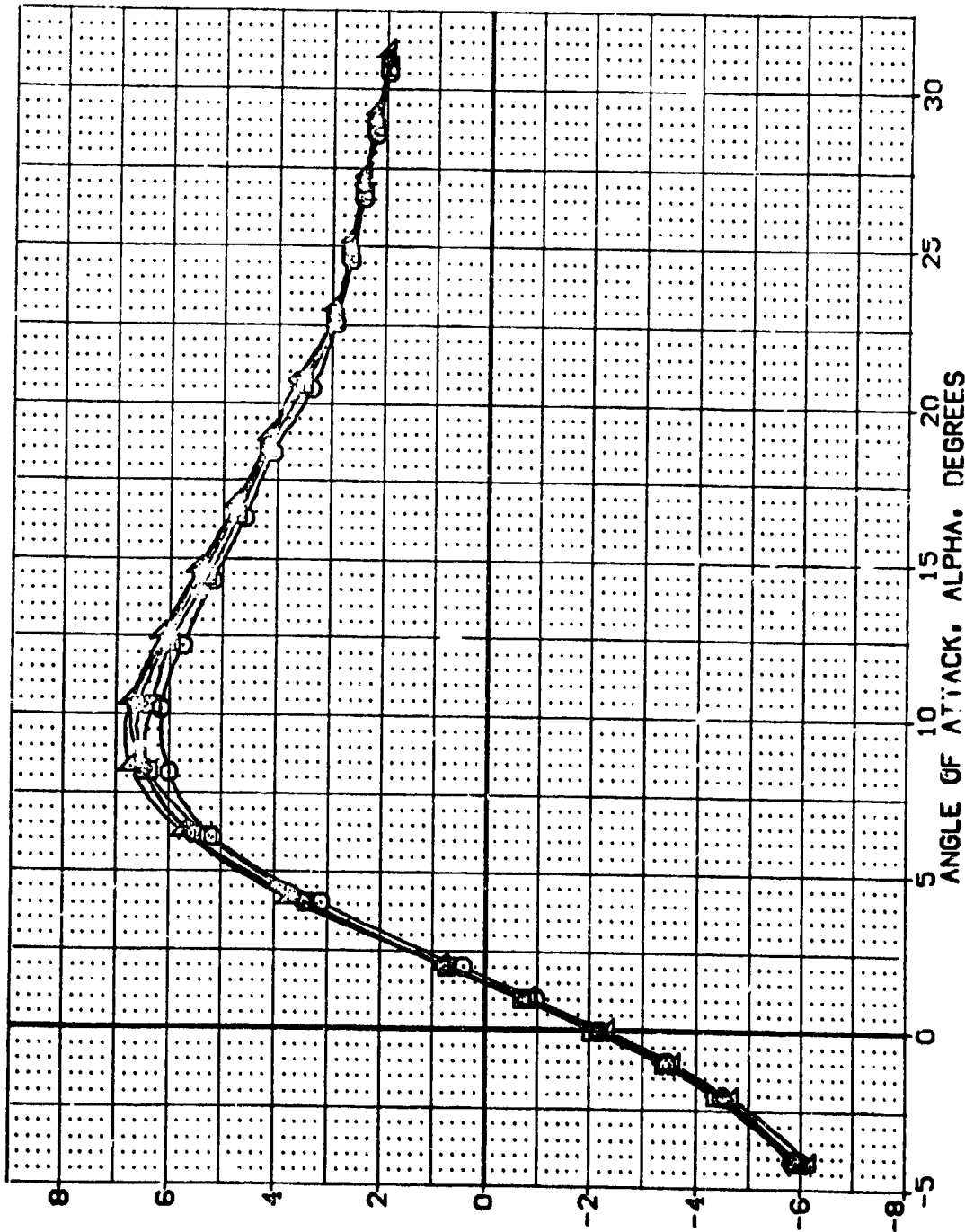


FIG 54 EFFECT OF REYNOLDS NO. ON LONGITUDINAL STABILITY, ELEVON = 0, 25 FL/RE  
(A)MACH = .12

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	REFLAP	AILRON	REFERENCE INFORMATION
[R02117]	04528 B28C3 M7F8 V116E28V8B3X9	.000	25.000	-12.000	.000	4.4119 SQ.FT.
[R02118]	04528 B28C3 M7F8 V116E28V8B3X9	5.000	25.000	-12.000	5.000	19.2299 INCHES
[R02119]	04528 B28C3 M7F8 V116E28V8B3X9	5.000	25.000	-12.000	10.000	27.9359 INCHES
[R02120]	04528 B28C3 M7F8 V116E28V8B3X9	5.000	25.000	-12.000	-5.000	43.5971 INCHES
[R02121]	04528 B28C3 M7F8 V116E28V8B3X9	10.000	25.000	-12.000	5.000	.0000 INCHES
[R02122]	04528 B28C3 M7F8 V116E28V8B3X9					15.1875 INCHES
						.0405 SCALE

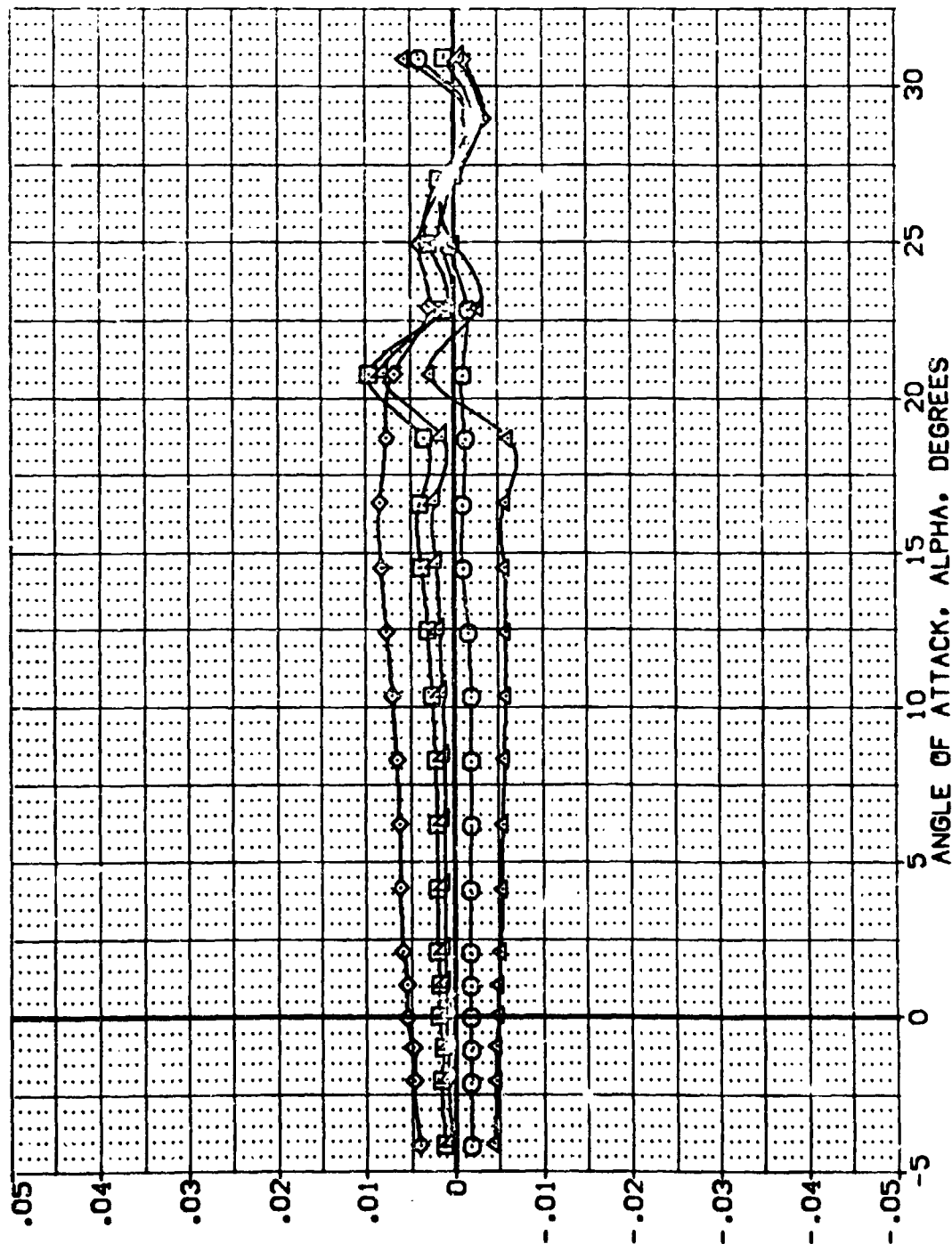


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(M)MACH = .20

ROLLING MOMENT COEFFICIENT, CRL (BODY AXIS)

DATA SET SYMBOL	CONFIGURATION (DESCRIPTION)	ELEVON	SPOROK	BOFLAP	AILERON	REFERENCE INFORMATION
[RZ117]	0A528 B26C3 M7F8 V116E28/8P5X3	0.00	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
[RZ118]	0A528 B26C3 M7F8 V116E28/8P5X3	5.000	25.000	-12.000	5.000	LREF 19.2289 INCHES
[RZ119]	0A528 B26C3 M7F8 V116E28/8P5X3	5.000	25.000	-12.000	10.000	BREF 37.9359 INCHES
[RZ120]	0A528 B26C3 M7F8 V116E28/8P5X3	5.000	25.000	-12.000	-5.000	XREF 43.5574 INCHES
[RZ121]	0A528 B26C3 M7F8 V116E28/8P5X3	10.000	25.000	-12.000	5.000	YREF .0000 INCHES
[RZ122]	0A528 B26C3 M7F8 V116E28/8P5X3					ZREF 15.1875 INCHES
						SCALE .0405

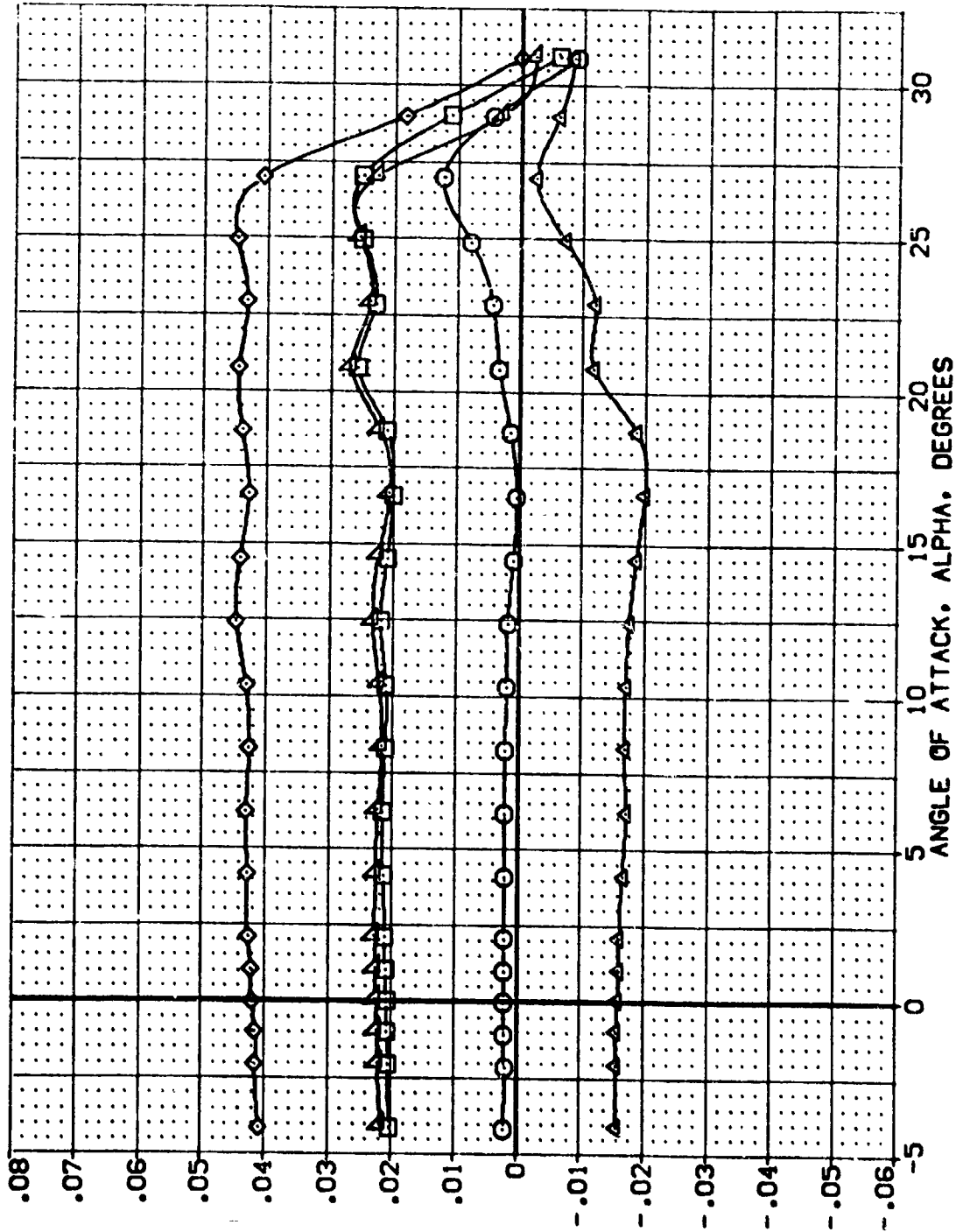


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(M)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOROK	BOFLAP	AILERON	REFERENCE INFORMATION
[R02117]	0A628 B26C3 H7F8 V116Z28V85X3	0.000	25.000	-12.000	0.000	4.4119 50.000
[R02161]	0A628 B26C3 H7F8 V116Z28V85X3	5.000	25.000	-12.000	5.000	19.2259 10.000
[R02161]	0A628 B26C3 H7F8 V116Z28V85X3	5.000	25.000	-12.000	10.000	37.9359 10.000
[R02157]	0A628 B26C3 H7F8 V116Z28V85X3	5.000	25.000	-12.000	-5.000	43.5974 10.000
[R02157]	0A628 B26C3 H7F8 V116Z28V85X3	10.000	25.000	-12.000	5.000	15.1875 10.000
[R02159]	0A628 B26C3 H7F8 V116Z28V85X3					SCALE .0405

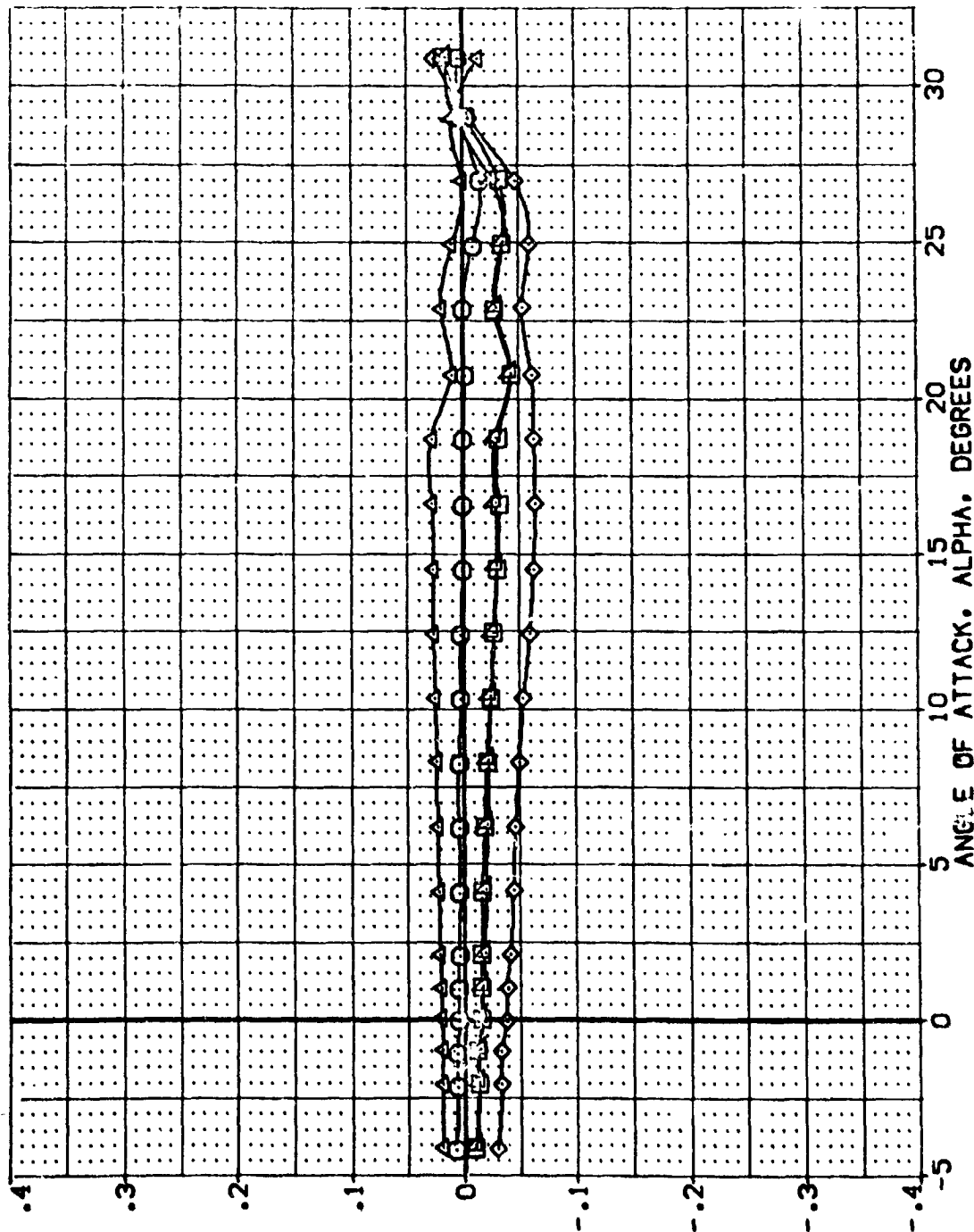


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	AILDRN	REFERENCE INFORMATION
[R0217]	0A628 B26C3 M7F8 V116E28V8F5V3	.000	25.000	-12.000	.000	SREF 4.4119 50. FT
[R02156]	0A628 B26C3 M7F8 V116E28V8F5V3	-5.000	25.000	-12.000	5.000	LREF 19.2299 INCHES
[R02159]	0A628 B26C3 M7F8 V116E28V8F5V3	-5.000	25.000	-12.000	10.000	BREF 37.5369 INCHES
[R02155]	0A628 B26C3 M7F8 V116E28V8F5V3	-10.000	25.000	-12.000	10.000	XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405 SCALE

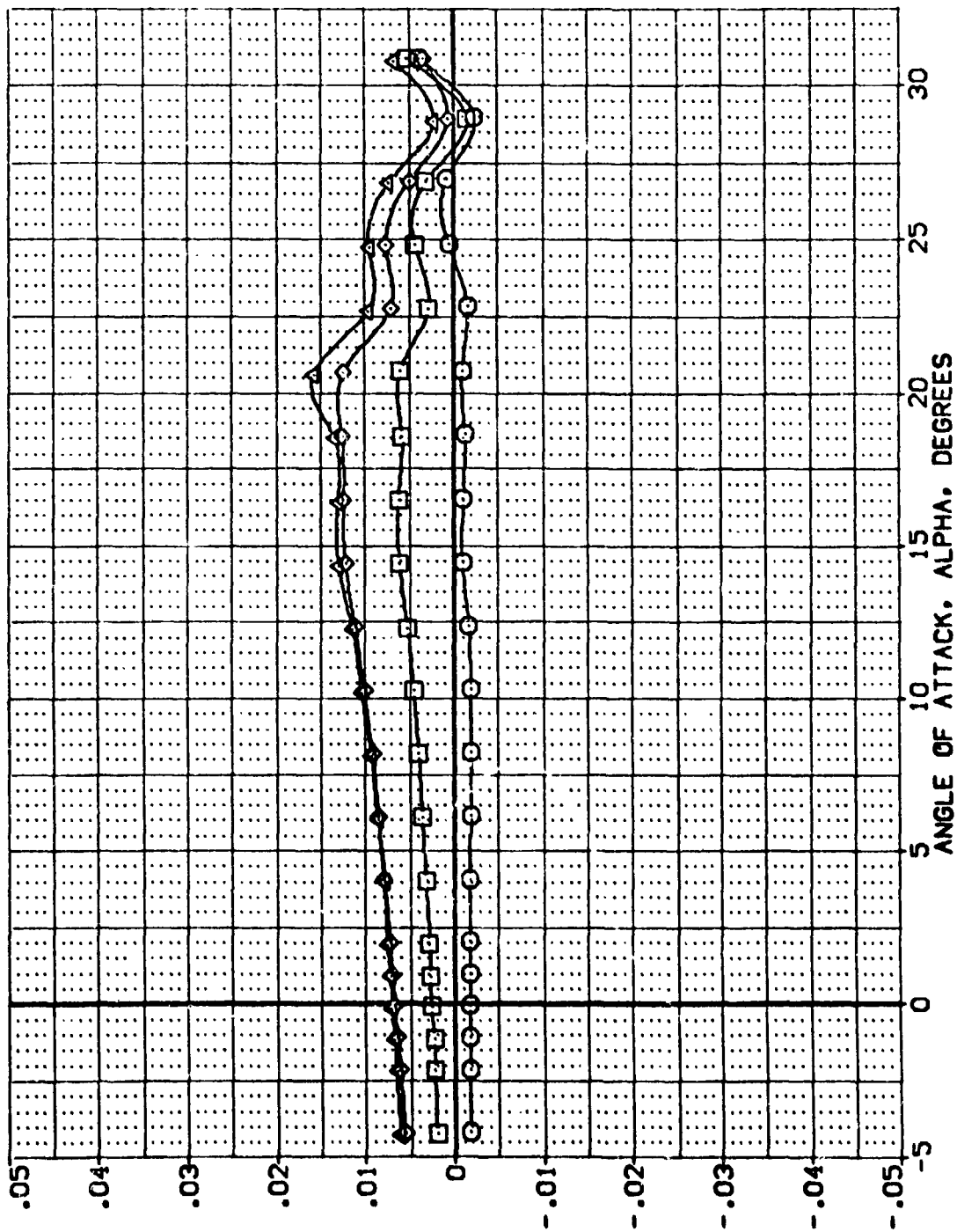


FIG 55 AILERON EFFECTIVENESS. BASELINE ELEVON GAP, 25 DEG FLARE

(M)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	EDFLAP	AILERON	REFERENCE INFORMATION
{RZ117}	0A528 B26C3 M7F8 V116E28V8F5X9	.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
{RZ118}	0A528 B26C3 M7F8 V116E28V8F5X9	-5.000	25.000	-12.000	5.000	LREF 19.2299 INCHES
{RZ119}	0A528 B26C3 M7F8 V116E28V8F5X9	-5.000	25.000	-12.000	10.000	BREF 37.9359 INCHES
{RZ120}	0A528 B26C3 M7F8 V116E28V8F5X9	-10.000	25.000	-12.000	10.000	XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

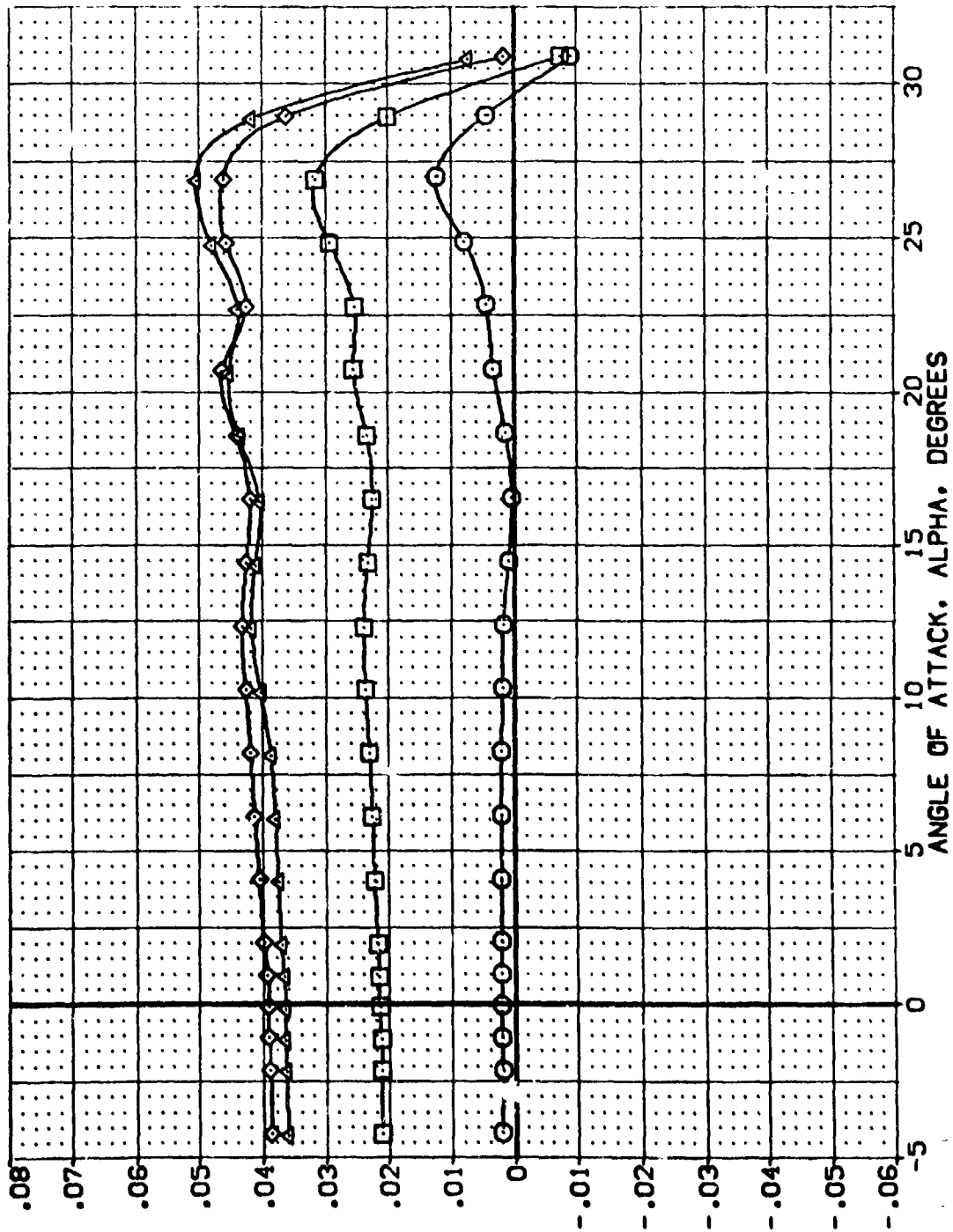


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(A)MACH = .20





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORRK	BOFLAP	AILRON	REFERENCE INFORMATION
(R02117)	0A528 B26C3 M7F8 V11E28V8C3V3	.000	25.000	-12.000	.000	SREF 4.4119 SQ.FT.
(R02158)	0A528 B26C3 M7F8 V11E25V8C3V3	-5.000	25.000	-12.000	5.000	LREF 19.2299 INO-ES
(R02159)	0A528 B26C3 M7F8 V11E28V8C3V3	-5.000	25.000	-12.000	10.000	BREF 37.9359 INO-ES
(R02155)	0A528 B26C3 M7F8 V11E28V8C3V3	-10.000	25.000	-12.000	10.000	XREF 43.5974 INO-ES
						YREF 15.1875 INO-ES
						ZREF .0405 INO-ES
						SCALE

SIDE FORCE COEFFICIENT, CY

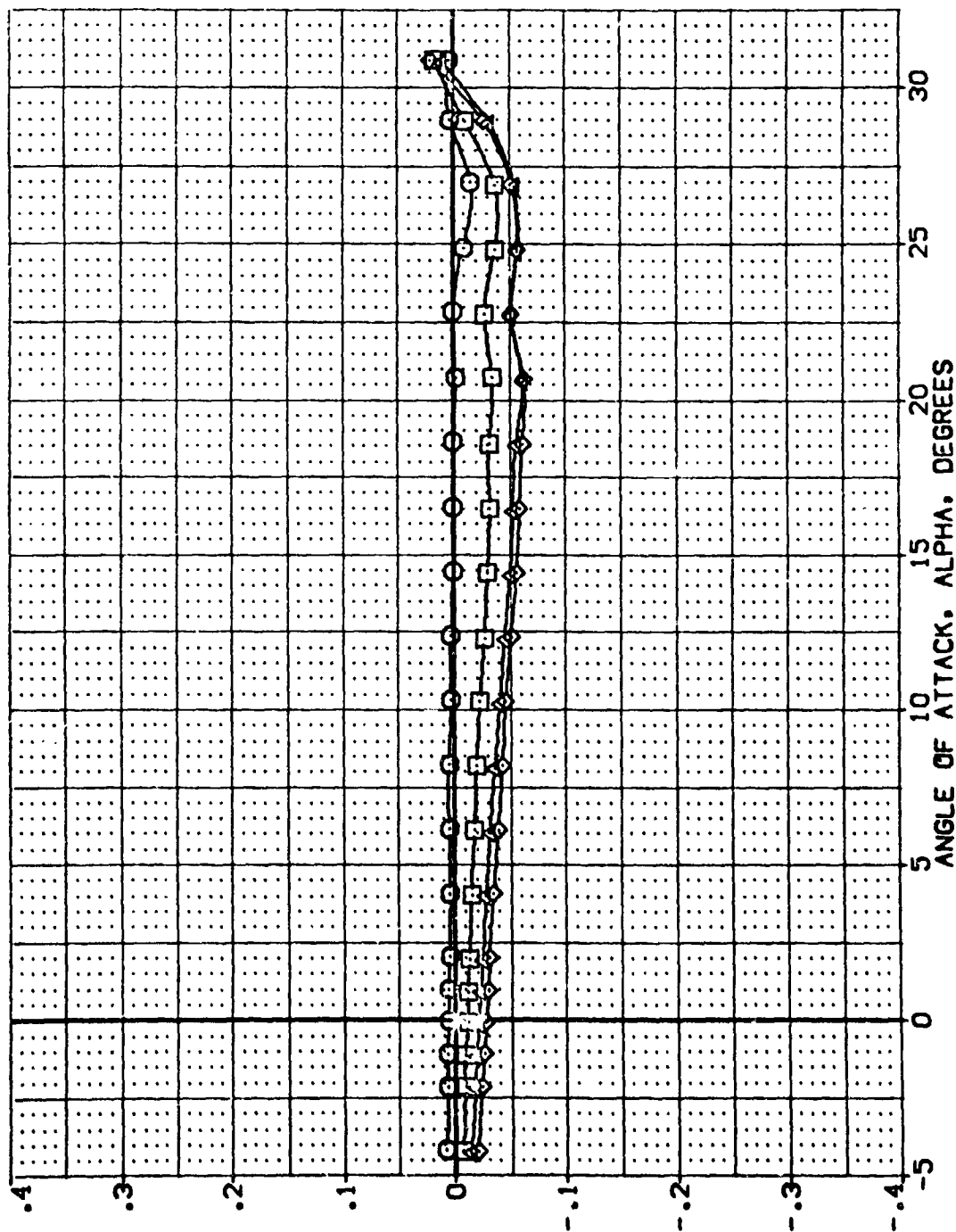


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(AJMACH = .20

(20Z117)

06628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	AILERON	DATASET	AILERON	SREF	REFERENCE INFORMATION
0	.000	.200	DELTA	.000	20Z117	.000	20Z161	5.000	4.4118	SQ.FT.
		-12.000	RUDDER	.000	20Z117	.000	20Z161	5.000	19.2259	INCHES
		25.000	BETA	.000	20Z160	10.000			37.5359	INCHES
									43.5574	INCHES
									15.1875	INCHES
									.0405	SCALE

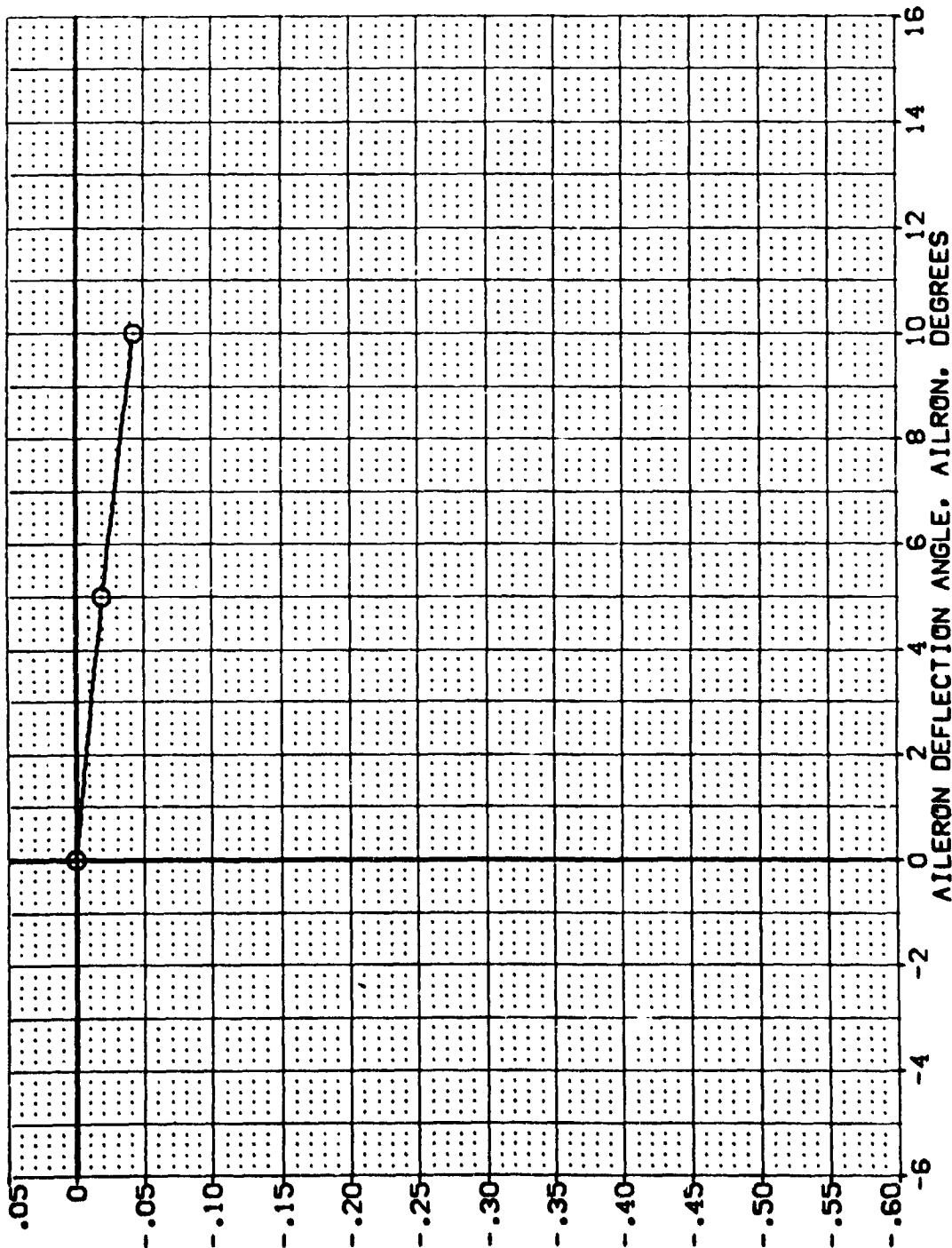
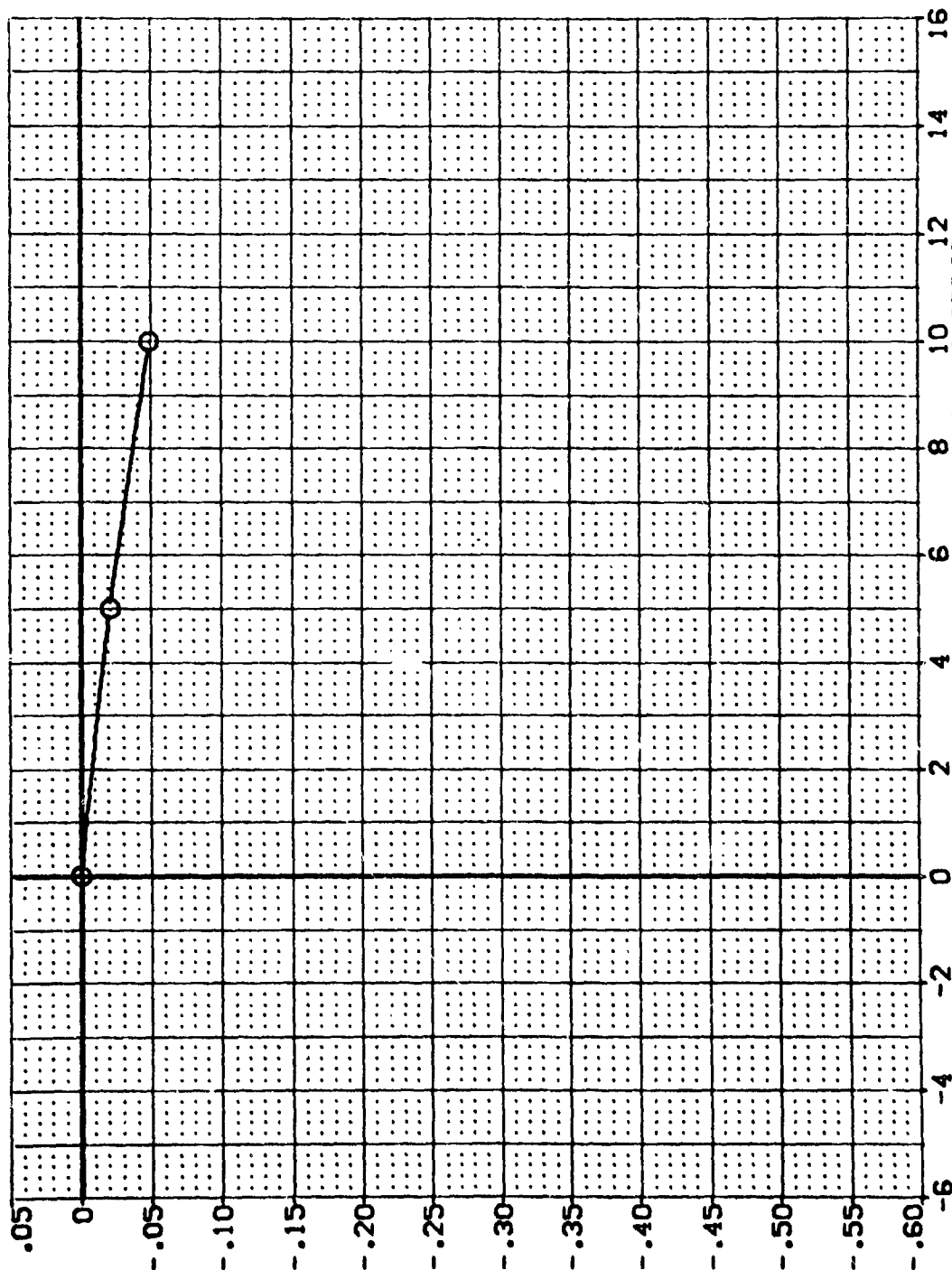


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

**2020**



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0A628 826C9 M7F8 W116E28V8R5X9 (2DZ117)

SYMBOL		ALPHA		MACH		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION													
O	10.000	.200	DELTON	.000	DATASET	20Z117	AILRON	10.000	20Z161	5.000	SREF												
												-12.000	RUDDER	.000	20Z117	LREF	19.2299						
																		25.000	BETA	.000	20Z160	XMRP	37.9359
		-12.000		RUDDER		.000		AILRON		19.2299													
		25.000		BETA		.000		20Z160		37.9359													
										43.5974													
										15.1875													
										.0405													
										SCALE													

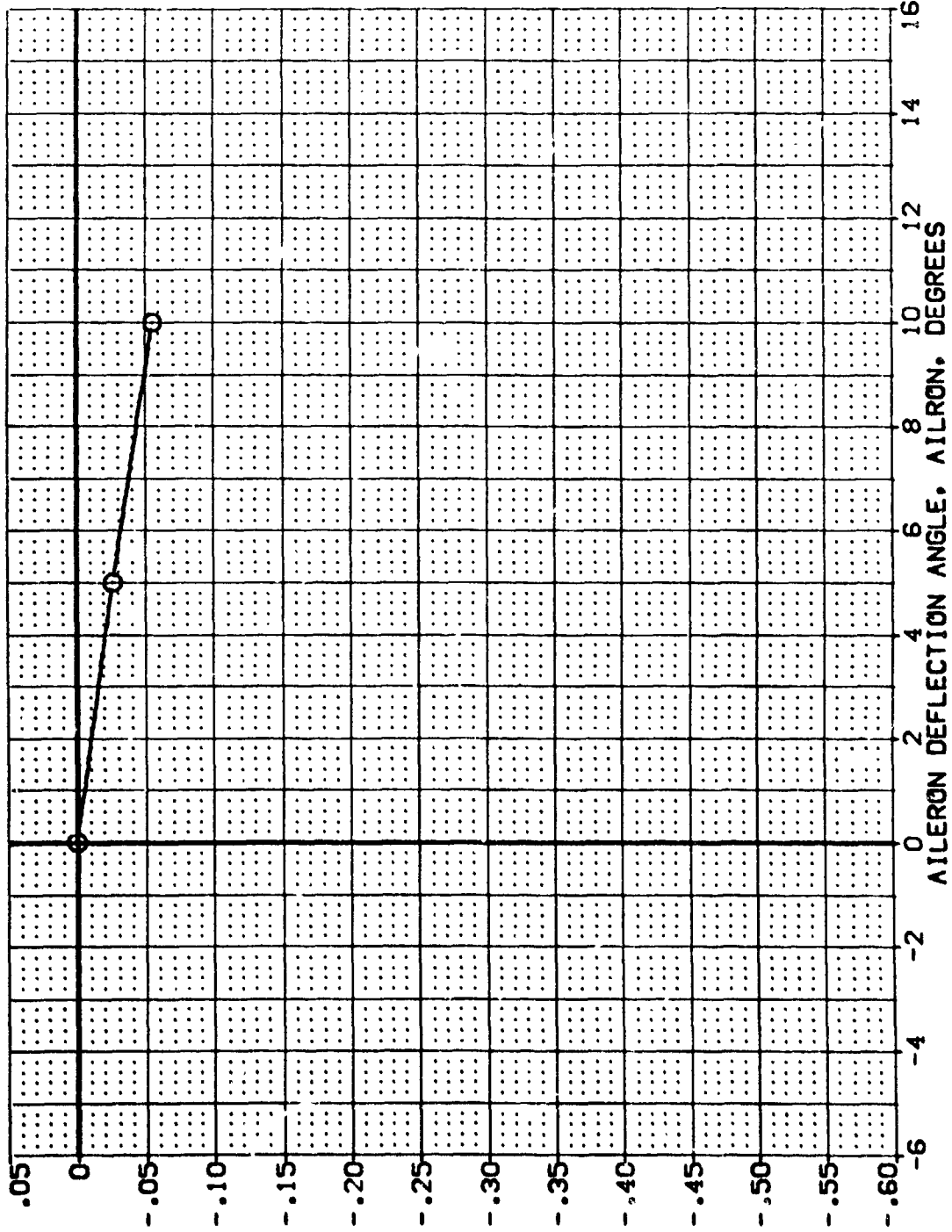


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(20Z117)

0A628 B26C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	15.000	MACH	.200	DELTA	.000	DATASET	AILRON	SREF	4.119	SO.FT.	INCHES
BOFLAP	-12.000	RUDDER	.000	20Z117	.000	20Z161	5.000	UREF	19.2299	INCHES	INCHES
SPDRK	25.000	BETA	.000	20Z160	10.000			XREF	37.9359	INCHES	INCHES
								YREF	43.5974	INCHES	INCHES
								ZREF	15.1873	INCHES	INCHES
								SCALE	.0405	SCALE	SCALE

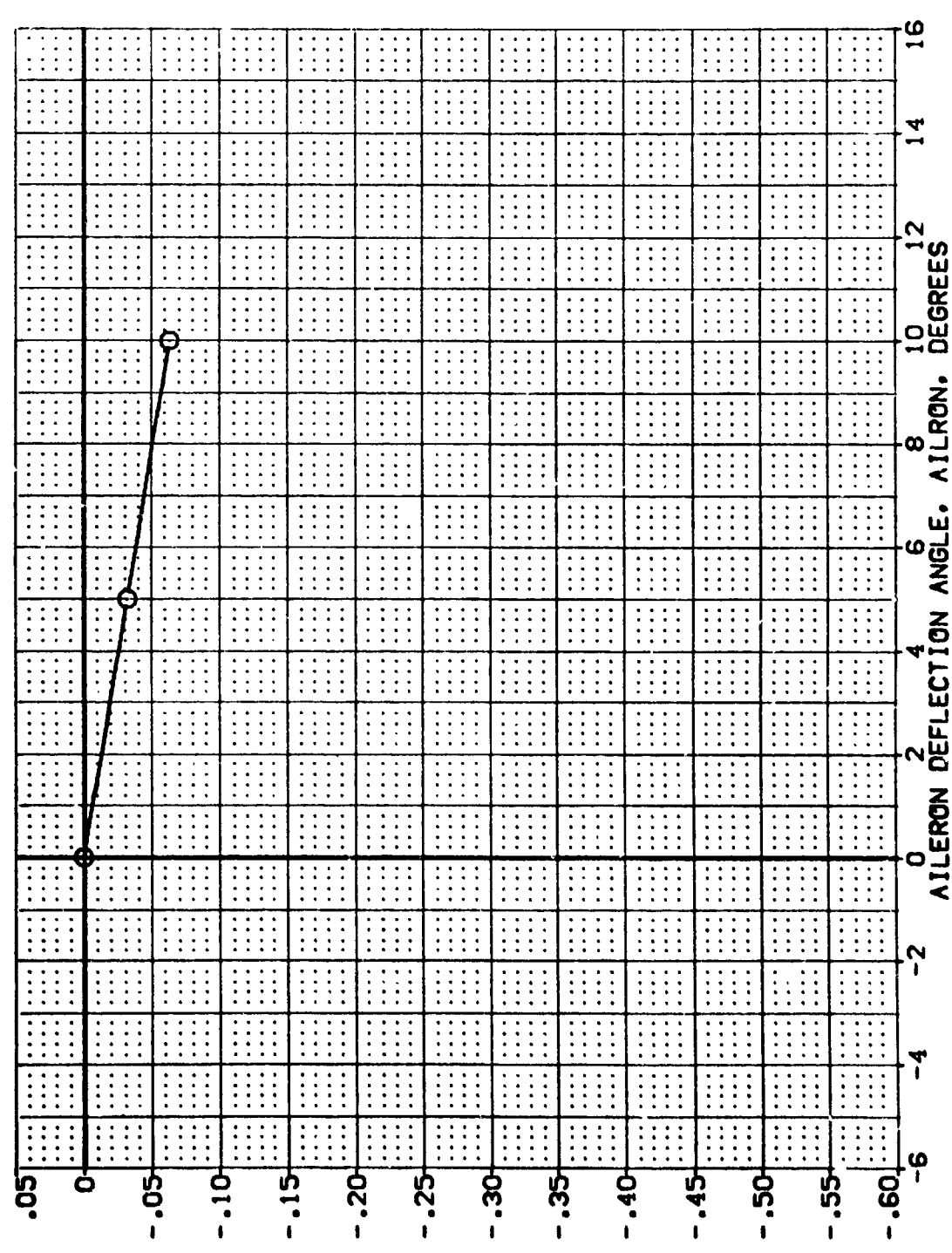


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	20.000	BDFLAP	.200 DELVON	.000 DATASET	4.4119 SQ.FT.
		SPODRK	-12.000 RUDDER	.000 AILRON	19.2299 INCHES
			25.000 BETA	20Z117 .000	37.9359 INCHES
				20Z160 10.000	43.5974 INCHES
					.0000 INCHES
					15.1875 INCHES
					.0405 SCALE

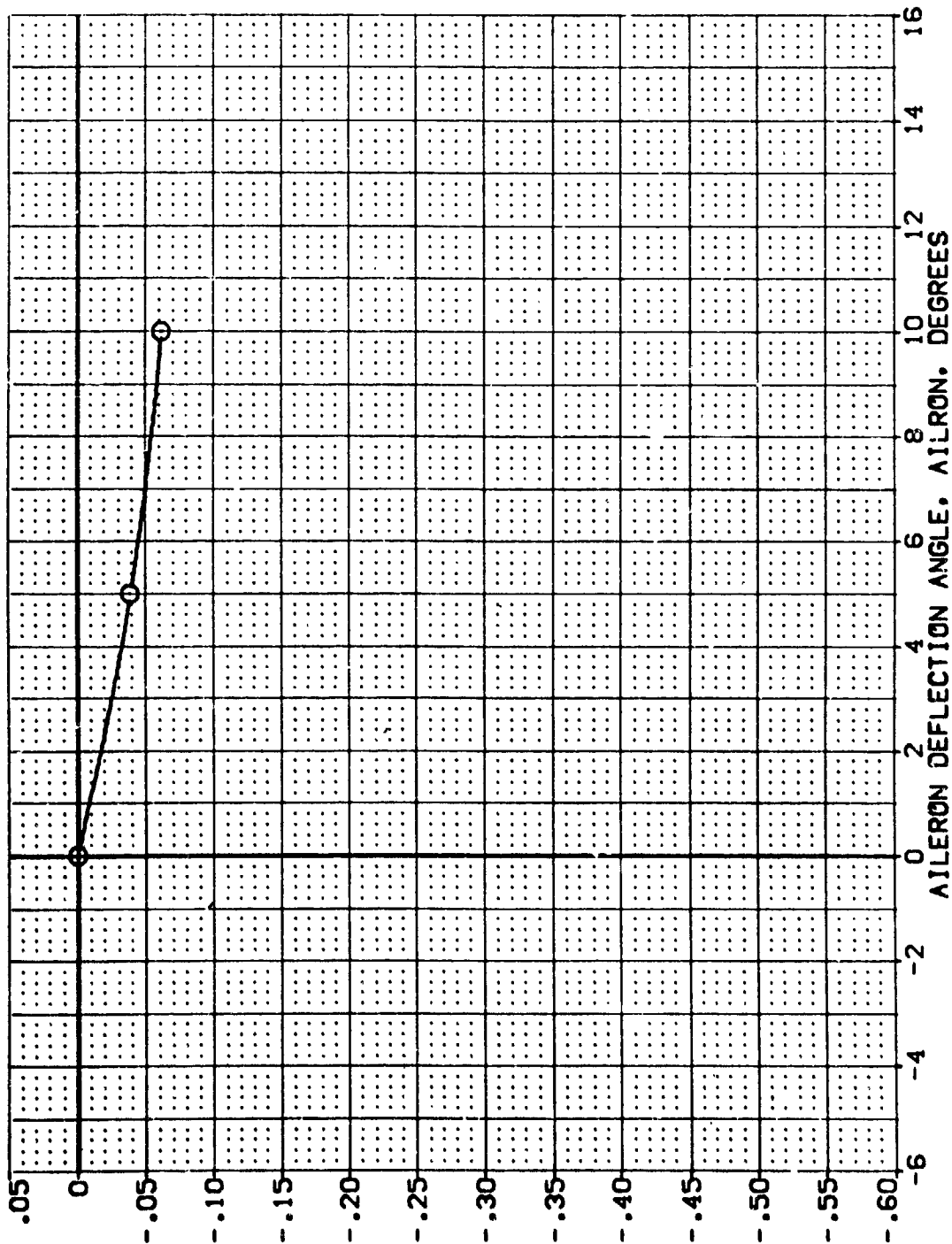


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

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0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
SYMBOL	ALPHA	MACH	DELTA	DELTA	AILRON	AILRON	SCALE	REF	REF	SCALE	SCALE
0	25.000	0.200	-12.000	20Z117	.000	20Z160	10.000	REF	REF	SCALE	SCALE
		25.000	25.000	20Z160	.000	20Z160	10.000	YMRP	YMRP	INCHES	INCHES
								ZMRP	ZMRP	INCHES	INCHES
								SCALE	SCALE	INCHES	INCHES
										SCALE	SCALE

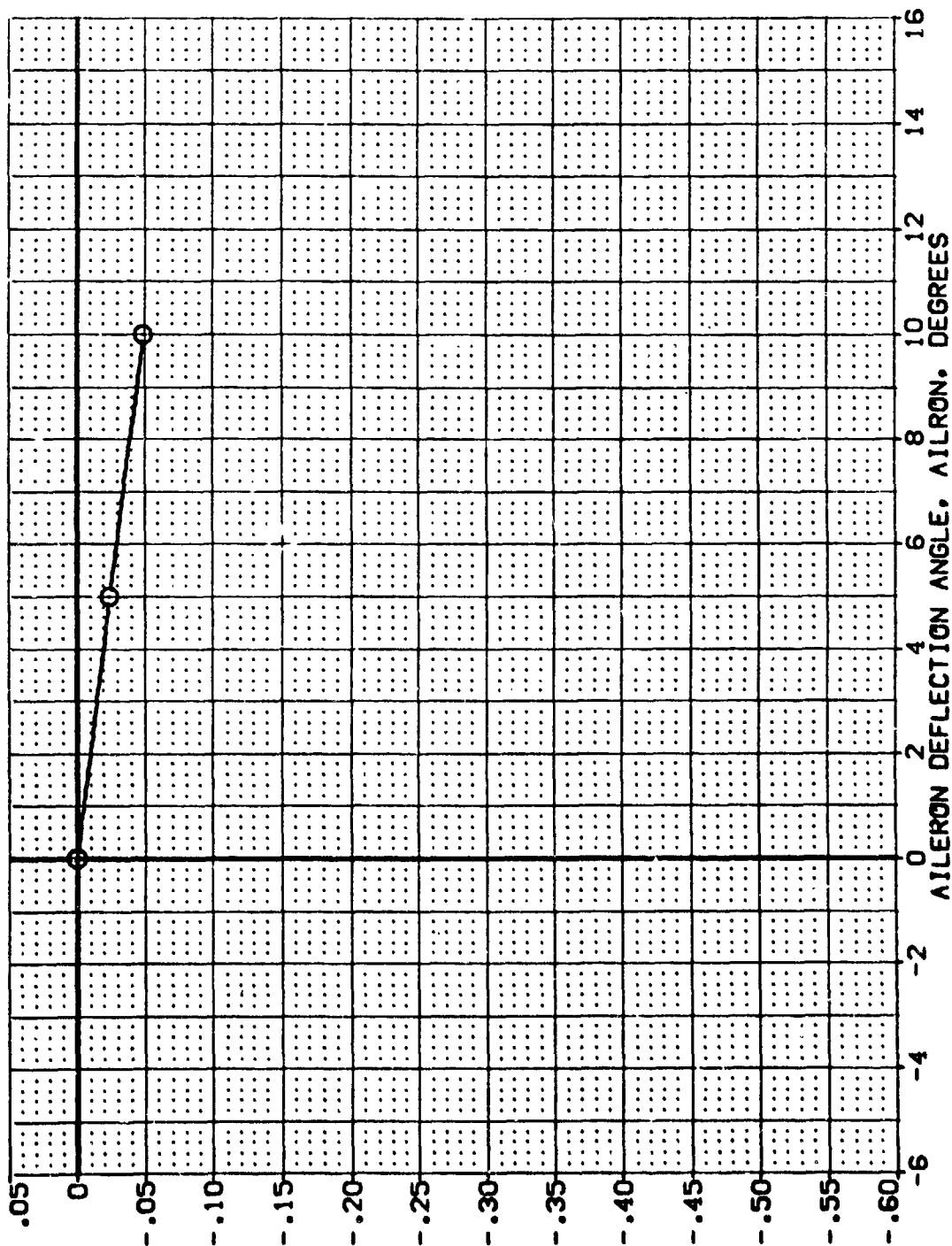


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
O	30.000	80FLAP	.200	DELTA	.000	20Z117	5.000	4.4119
		SPDRX	-12.000	RUDDER	.000	20Z167	10.000	19.2299
			25.000	BETA	.000	20Z167	10.000	37.9358
								43.5974
								15.0000
								15.1875
								SCALE
								.0405

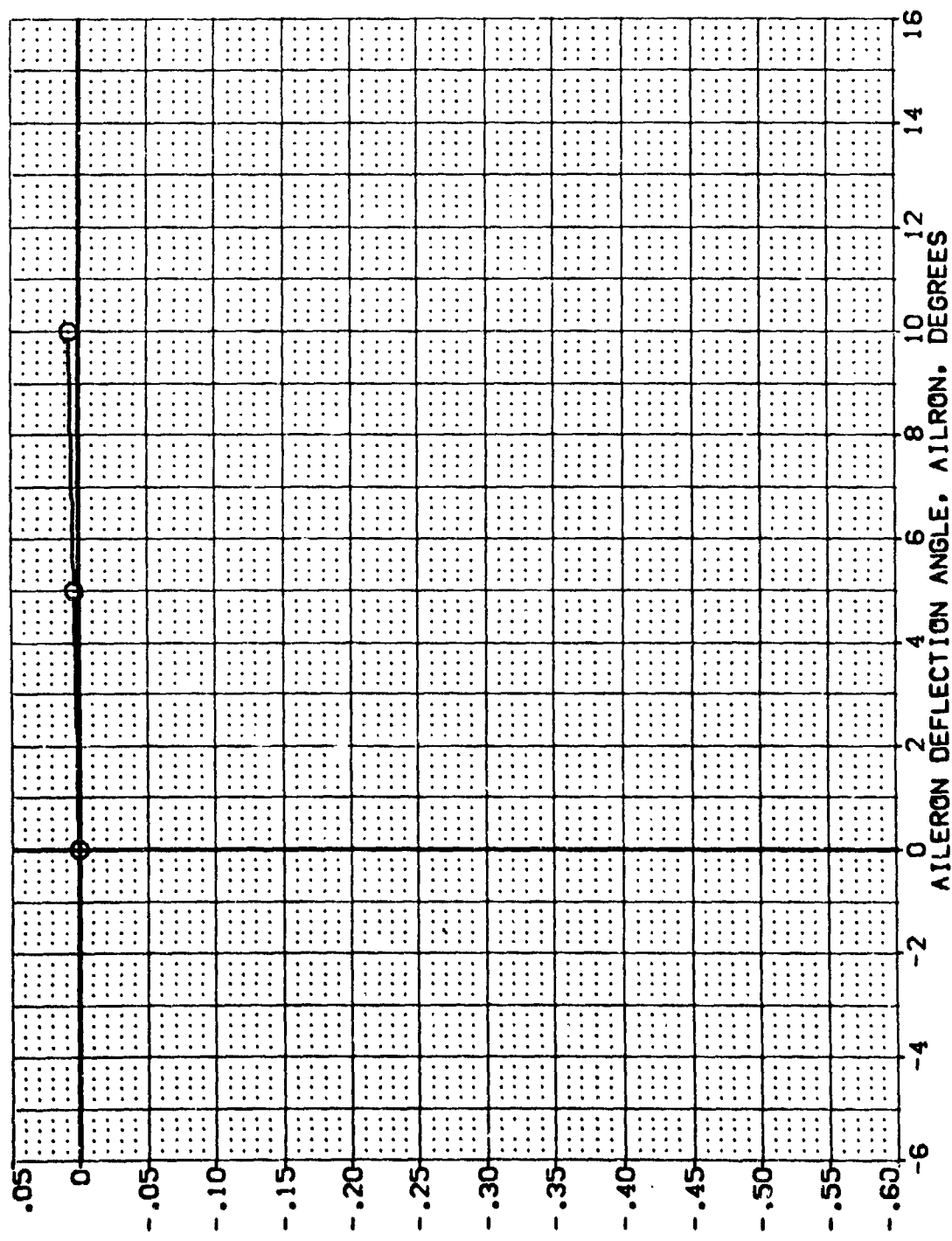


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



0A628 B28C9 M7F8 W116E28V8R5X9 (20Z117)  
 SYMBOL ALPHA .000 HACH .200 DEFLON .000 DATASET AILRON SREF SO.FT.  
 0 .000 -12.000 RUDER .000 20Z117 .000 LREF 19.2258 INCHES  
 SPDRK 25.000 BETA .000 20Z160 .000 XMRP 37.9359 INCHES  
 .000 .000 YMRP 43.5974 INCHES  
 .000 .000 ZMRP .0000 INCHES  
 .000 .000 SCALE 15.1875 INCHES  
 .000 .000 SCALE .0405

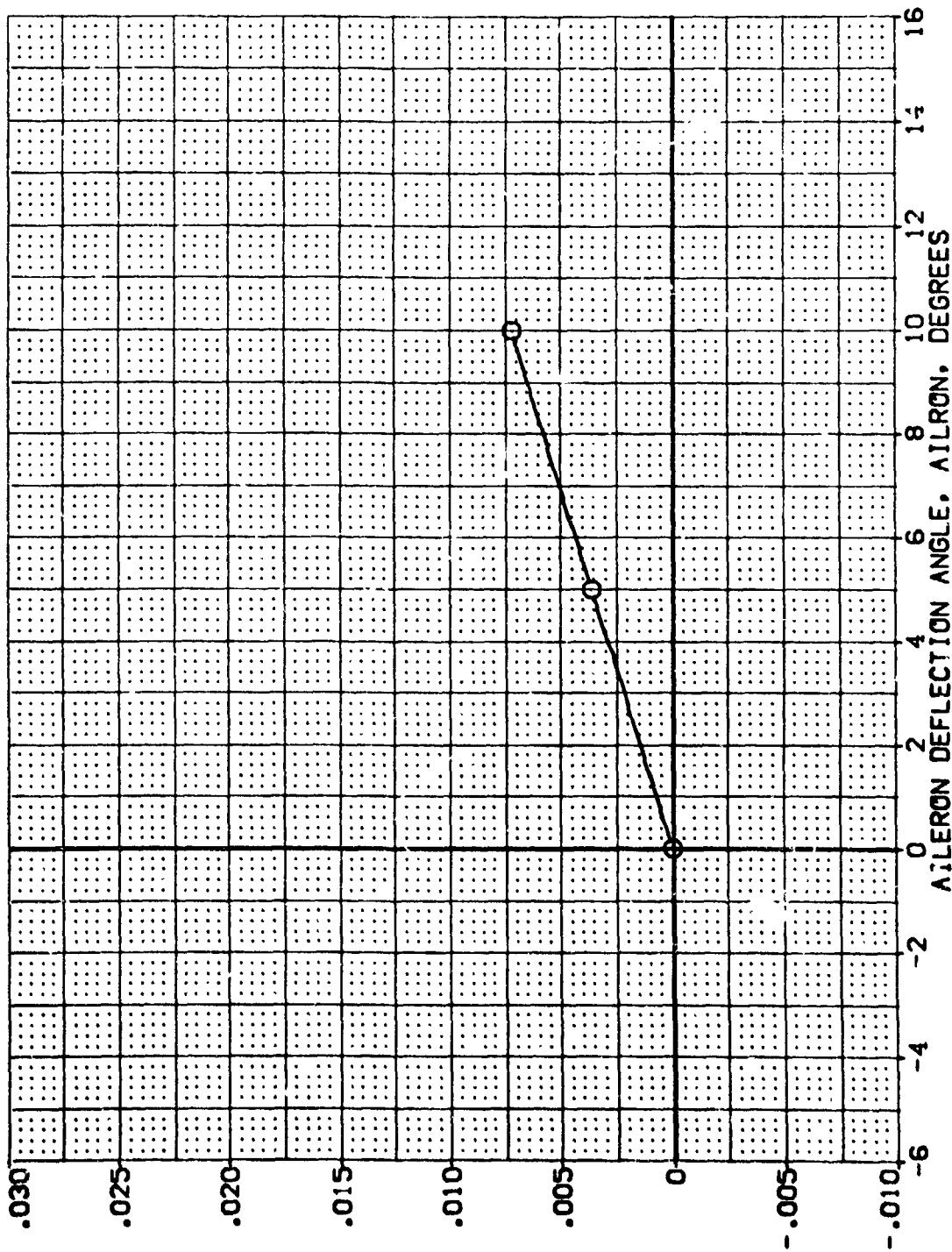


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	WASH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	AILRON	SREF	REFERENCE INFORMATION
O	5.000	BDCLAP	.200 DELVON	AILRON	20Z161	5.000	4.4119	90. FT.
		SPDRK	-12.000 RUDDER	20Z117			19.2299	NOES
			25.000 BETA	20Z160			37.9359	NOES
							43.5874	NOES
							15.0000	NOES
							15.1673	NOES
							SCALE	SCALE

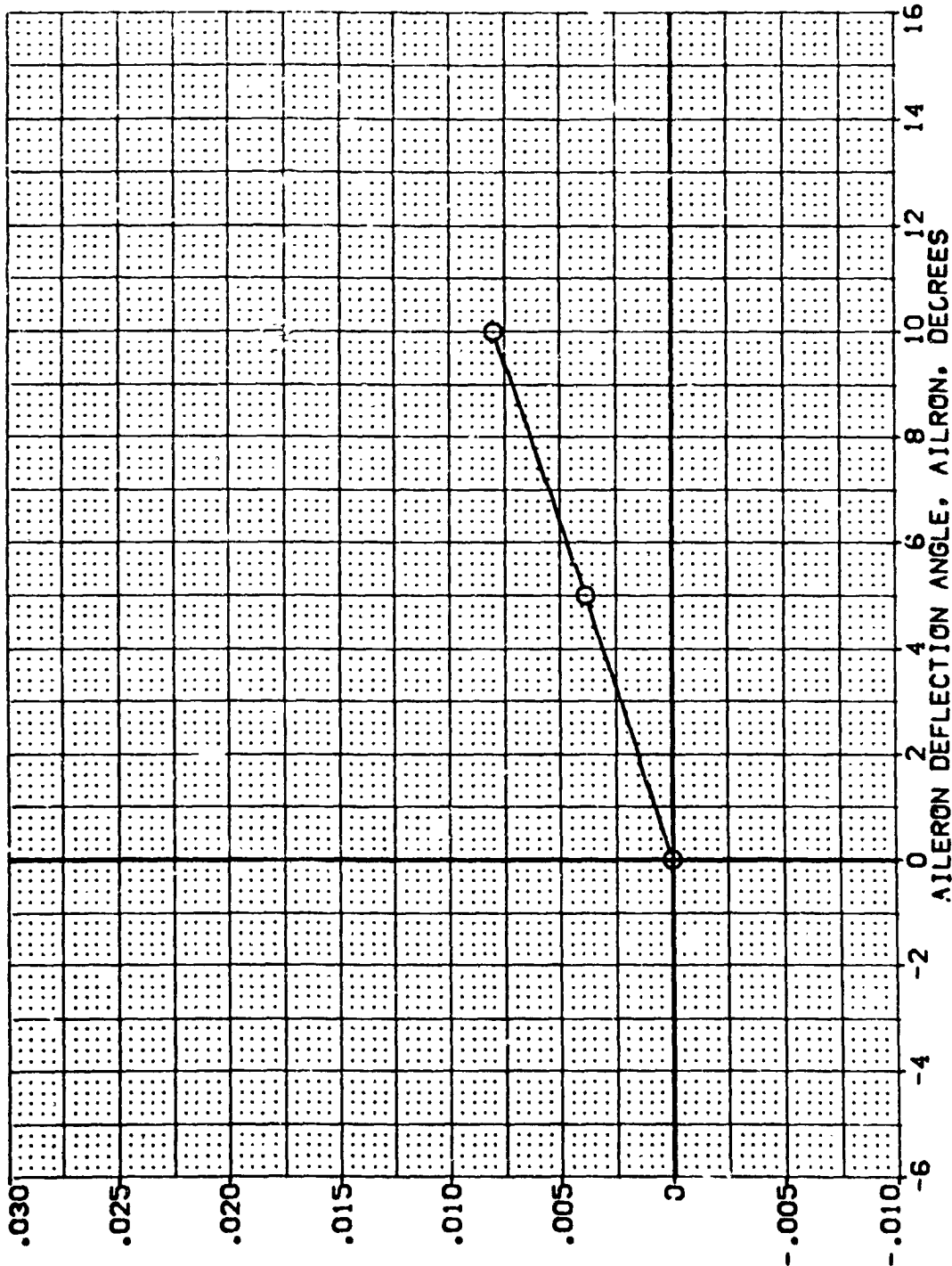


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9

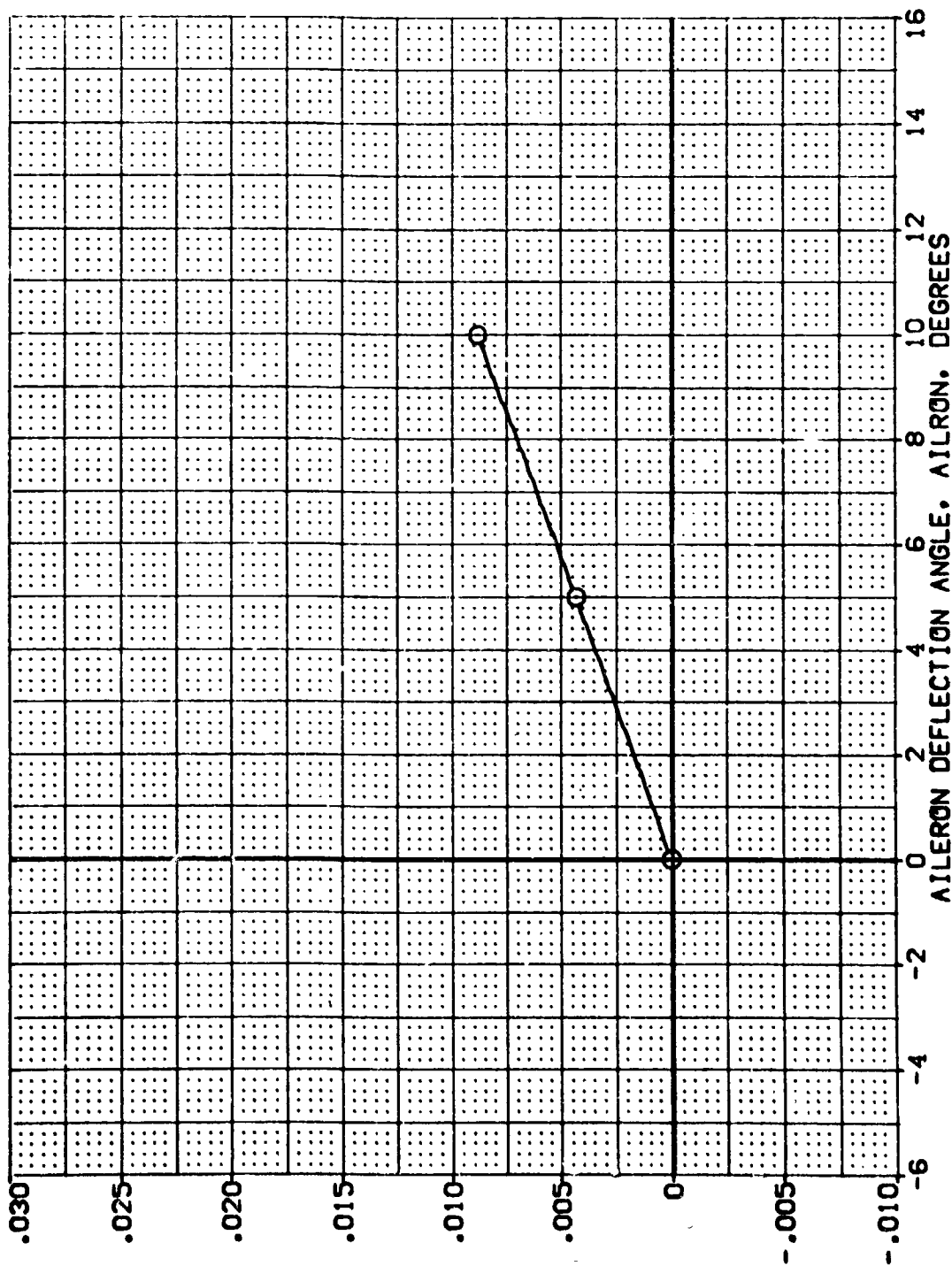
[illegible]

FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

01628 B26C9 M7F6 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	AIRLON	SREF	REFERENCE INFORMATION
O	15.000		.200 DELVEN	.000	20Z117	5.000	LREF	SO.FT. INCHES 19.2289
		BDFLAP	-12.000 RUDDER	.000	20Z160	10.000	BREF	INCHES 37.9359
		SFOBRK	25.000 BETA	.000			XPRP	INCHES 43.5574
							YPRP	INCHES .0000
							ZTRP	INCHES 15.1875
							SCALE	SCALE .0405

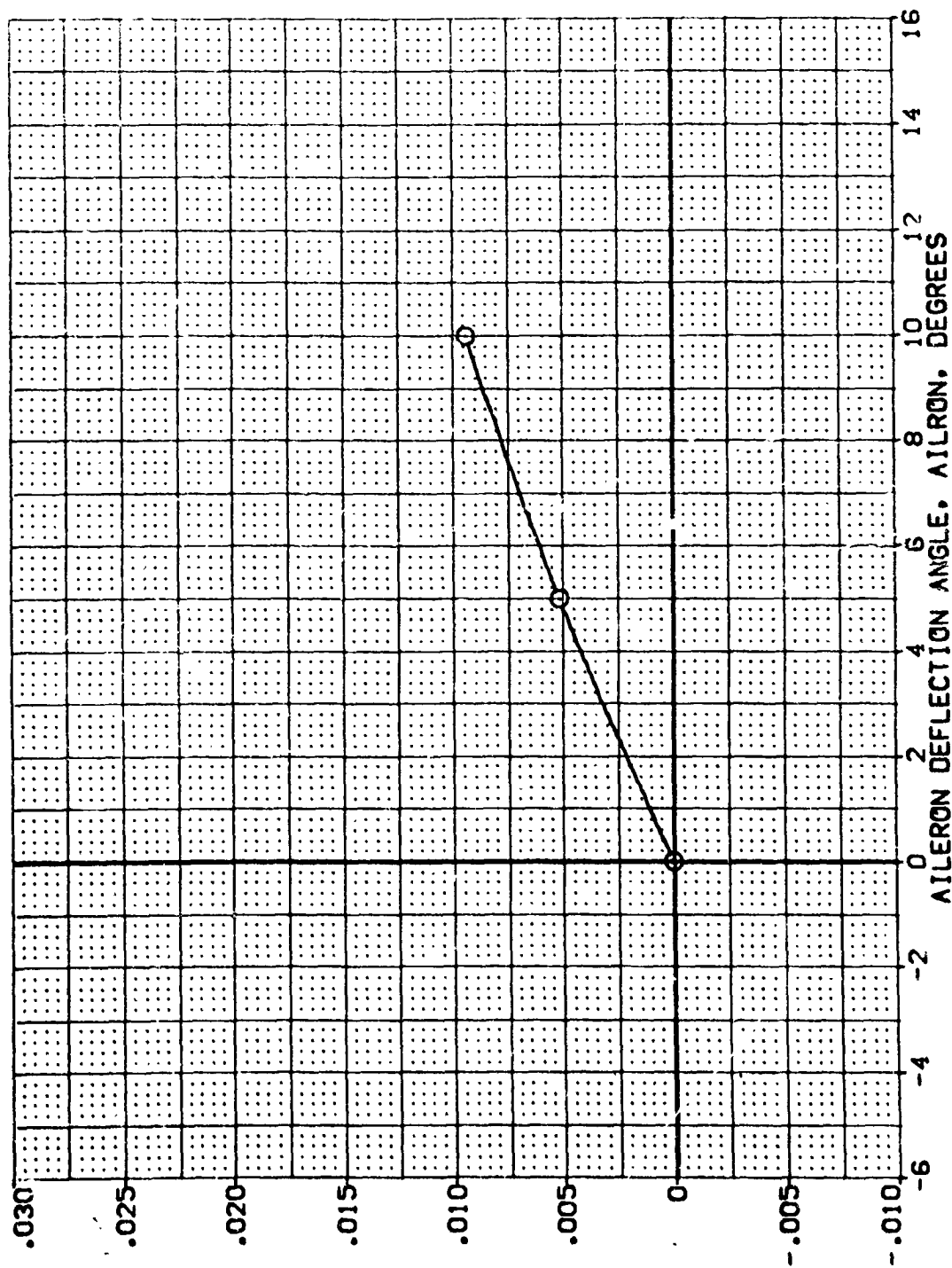


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
0	20.000	MACH	.200	DELTA	.000	DATA SET	AILREF	AILREF	SREF	4.4119	SO.FT.		
		BDLAP	-12.000	RUDDER	.000	20Z117	.000	LREF	LREF	19.2299	INCHES		
		SPOBRK	25.000	BETA	.000	20Z160	10.000	XMRP	XMRP	37.9359	INCHES		
								YMRP	YMRP	43.5974	INCHES		
								ZMRP	ZMRP	15.1875	INCHES		
								SCALE	SCALE	.0405	SCALE		

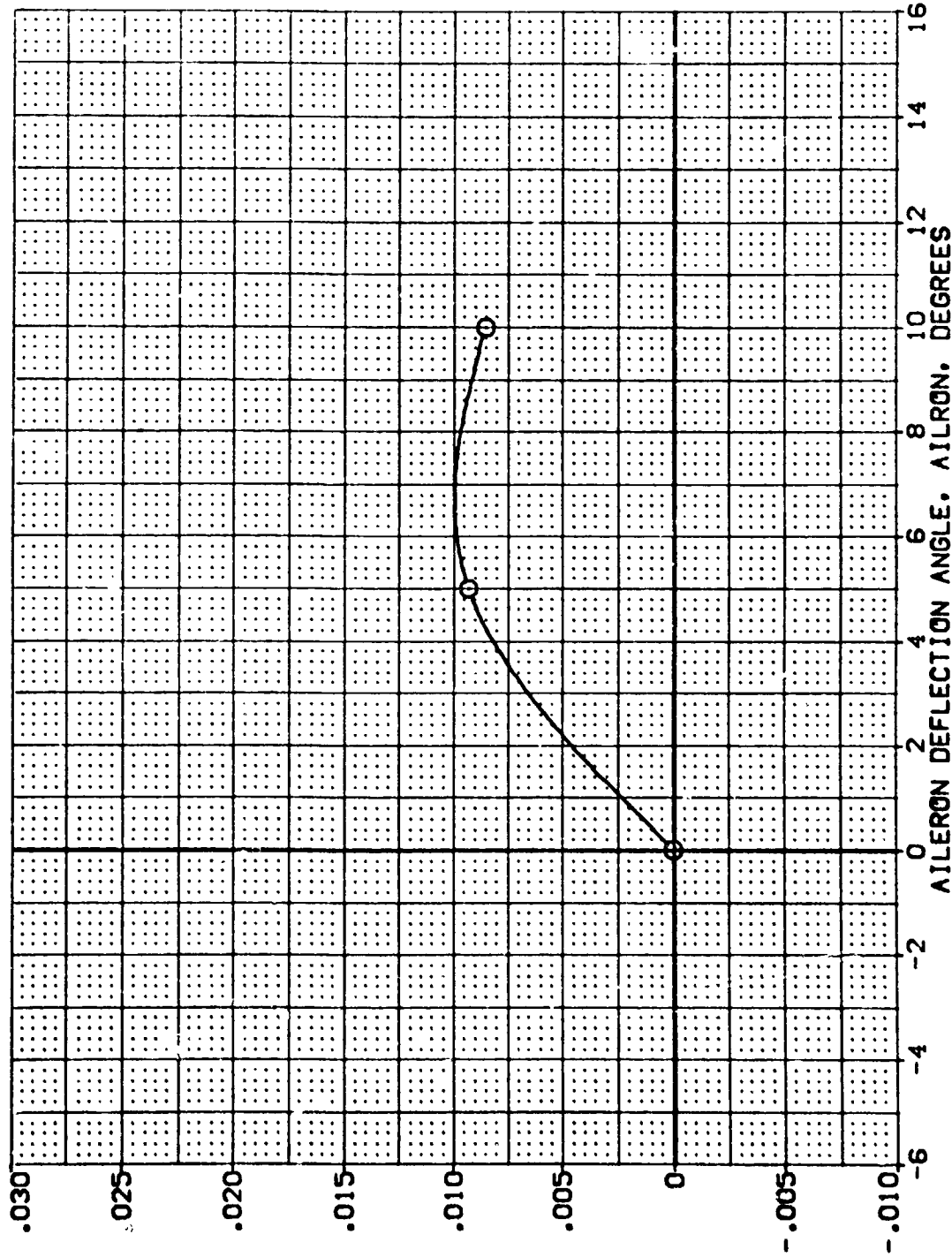


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION				
		MACH	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA
U	25.000	.200	.000	.000	.000	.000	.000	4.4119	50.000	50.000	50.000	50.000
		DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	19.2299	10.000	10.000	10.000	10.000
		DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	37.9359	5.000	5.000	5.000	5.000
		DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	43.5971	10.000	10.000	10.000	10.000
		DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	15.1875	15.1875	15.1875	15.1875	15.1875
		DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	.0405	.0405	.0405	.0405	.0405

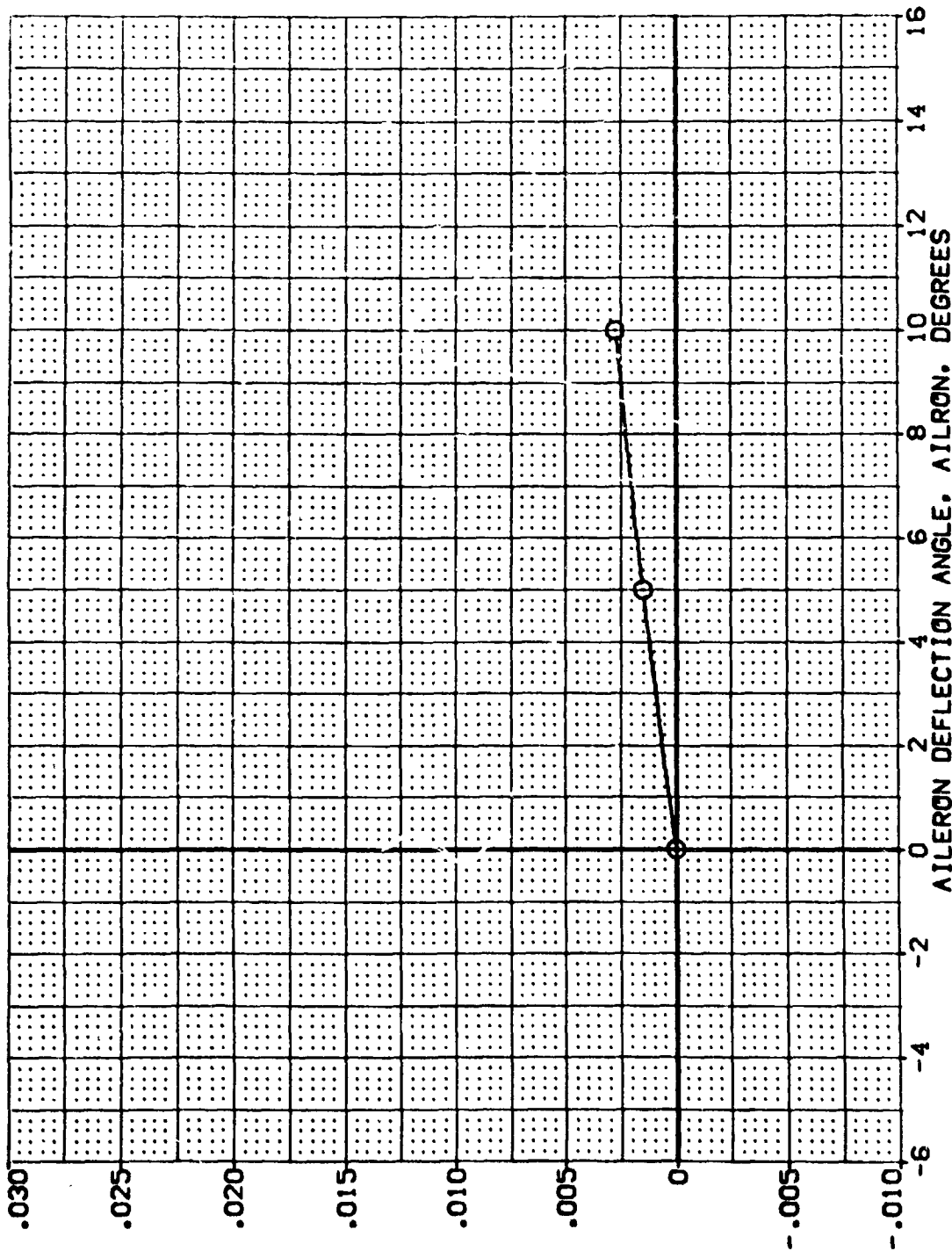


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	AILRON	SREF	REFERENCE INFORMATION
O	30.000	W0FLAP	.200 DELVON	AILRON	20Z117	5.000	4.4119	SO.FT.
		SPOBRK	-12.000 RUDDER	.000	20Z160		19.2298	INCHES
			25.000 BETA	10.000			37.5358	INCHES
							43.5974	INCHES
							.0000	INCHES
							15.1875	INCHES
							.0405	SCALE

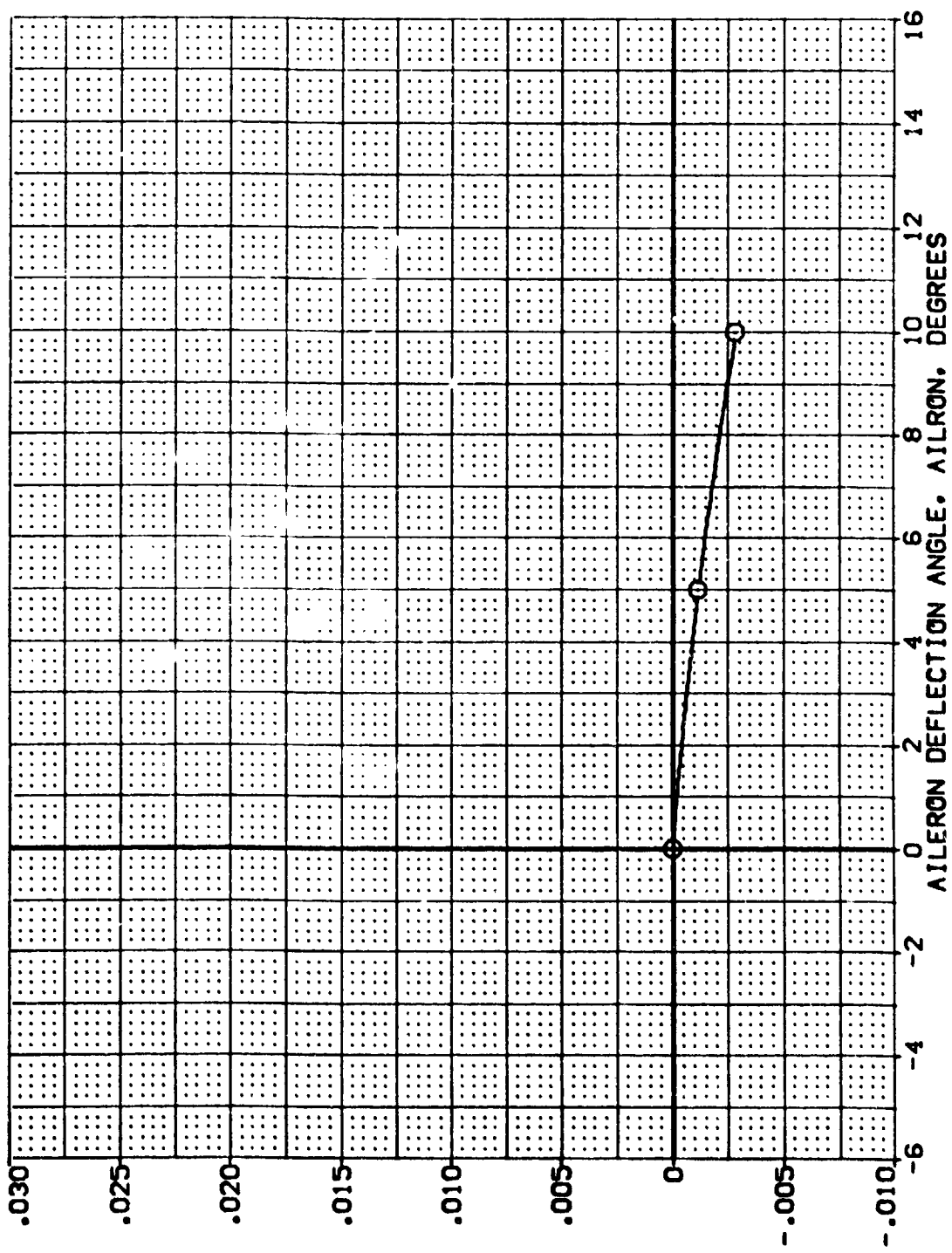


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(202117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	.000	MACH	.200	DELTA	.000	AILRON	SREF
BDFLAP	-12.000	RUDDER	.000	202117	.000	5.000	LRPF
SPOBRK	25.000	BETA	.000	202160	10.000		BRPF
							XMRP
							YMRP
							ZMRP
							SCALE
							SCALE
							SCALE
							SCALE
							SCALE
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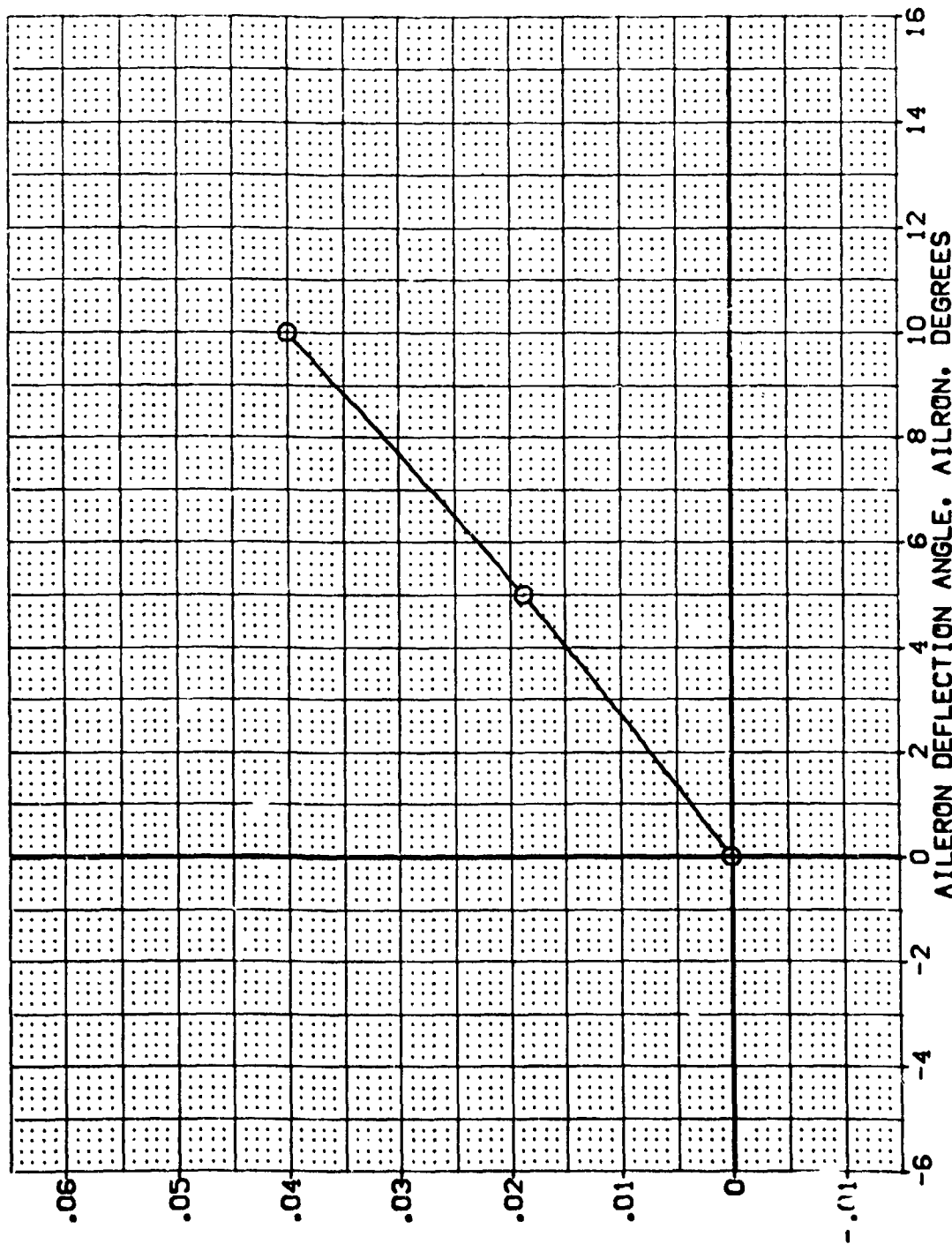


FIG 55 AILERON EFFECTIVENESS. BASELINE ELEVON GAP. 25 DEG FLARE



**GA**

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	5.000	MACH DELVON -12.000 RUDDER SPOBRK 25.000 BETA	.000 DATASET 20Z117 10.000 20Z160 .000	GREF LREF GREF XREF YPRP ZPRP SCALE SQ.FT. INCHES INCHES INCHES INCHES INCHES INCHES SCALE
				4.4119 19.2289 27.9359 43.5974 15.0000 15.1875 .0405

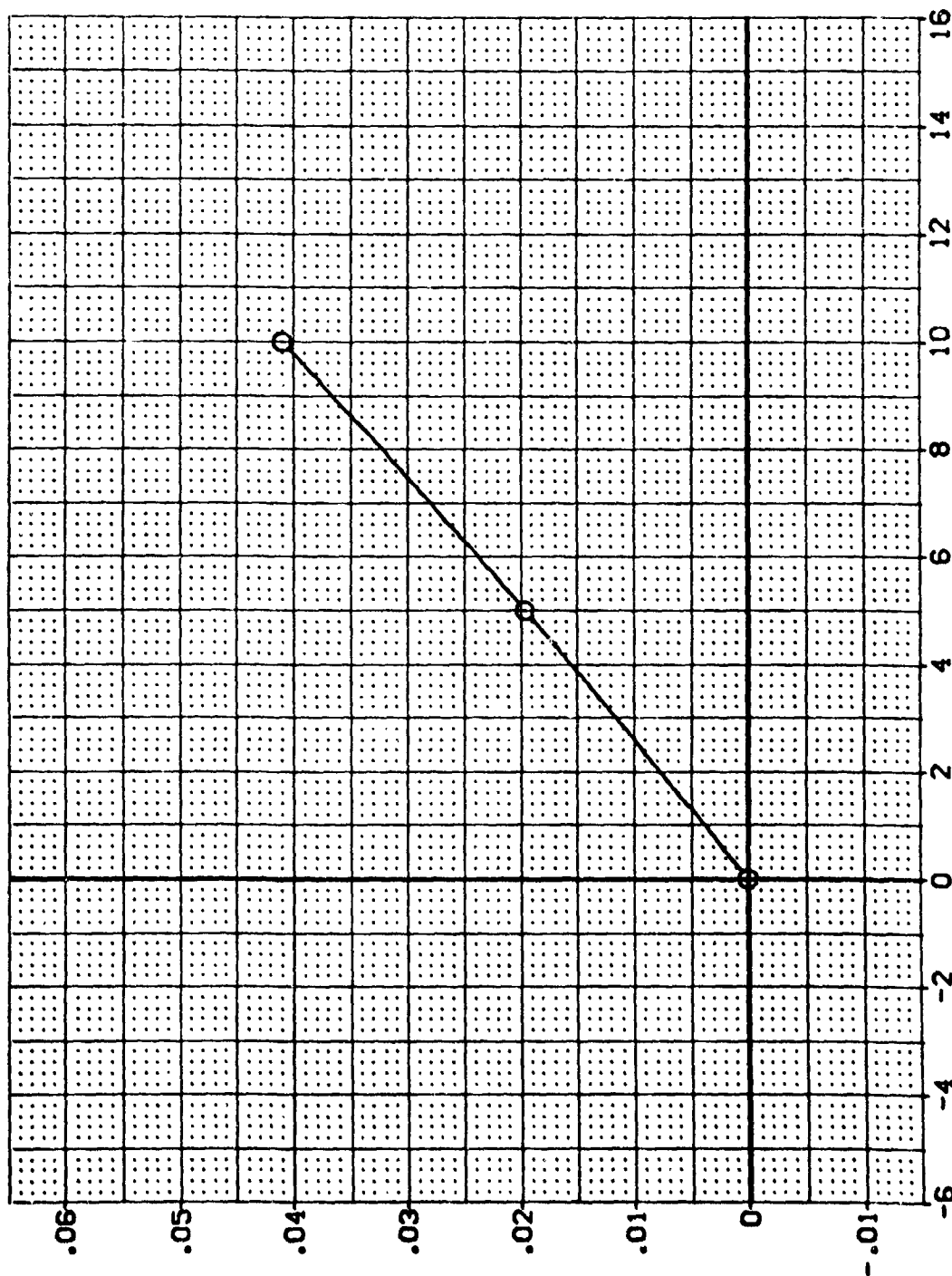


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (2DZ117)

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
SYMBOL	ALPHA	MACH	.000	DATASET	AILRON	SREF	4.4119	SQ.FT.
0	10.000	BDFLAP	.000	20Z117	5.000	LREF	19.2289	INCHES
		SPDRBK	.000	20Z160		BREF	37.9359	INCHES
						XMRP	43.5874	INCHES
						ZMRP	.0000	INCHES
						SCALE	15.1875	INCHES
							.0405	SCALE

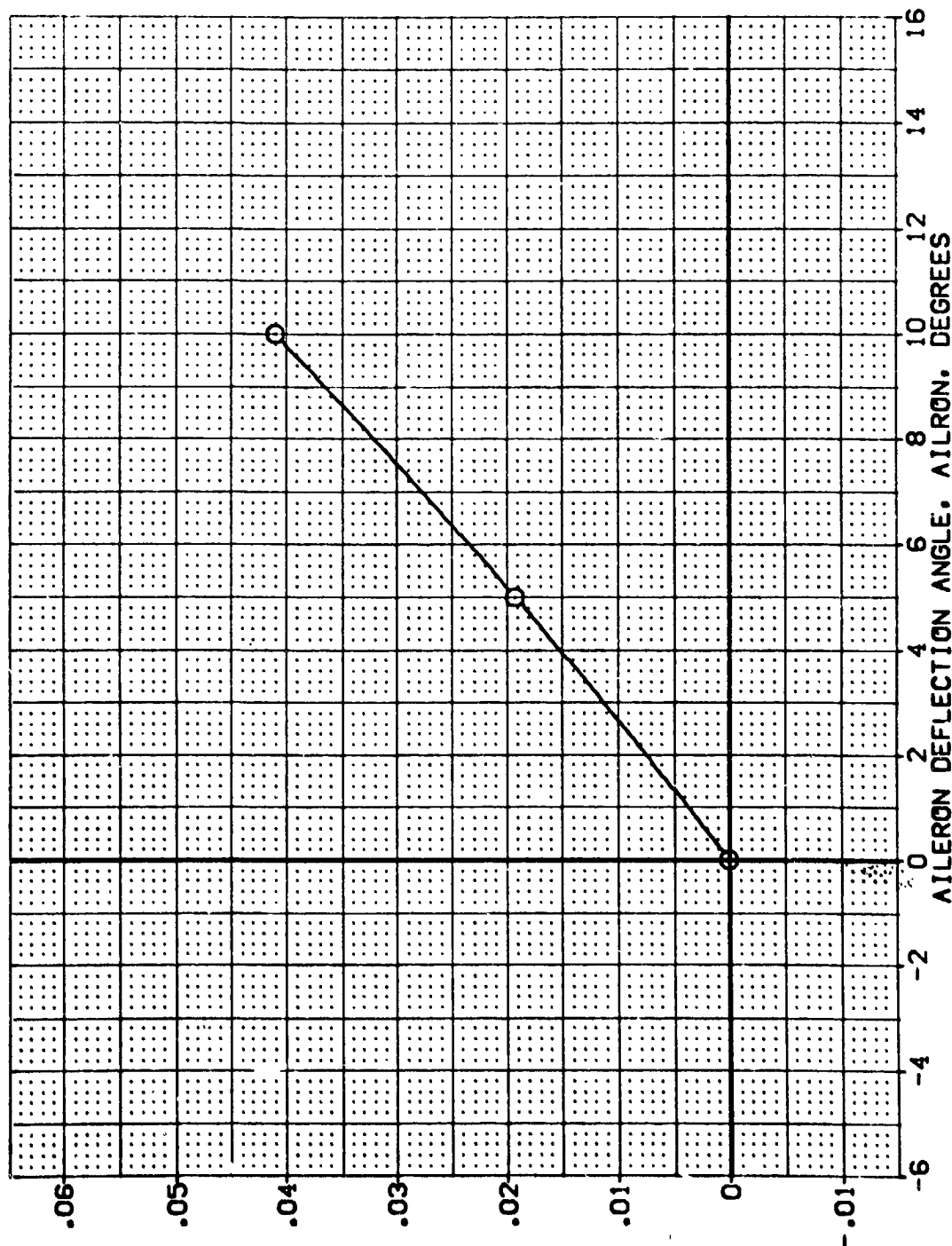


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(20Z117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
O	ALPHA	MACH	DELTA	DELTA	DELTA	DELTA	DELTA
	15.000	.200	.000	.000	.000	4.4119	SO. FT.
		BDFLAP	DELTA	DELTA	DELTA	19.2299	INCHES
		SPDRN	DELTA	DELTA	DELTA	37.9359	INCHES
			BETA	DELTA	DELTA	43.5974	INCHES
				DELTA	DELTA	.0000	INCHES
				DELTA	DELTA	15.1875	INCHES
				DELTA	DELTA	.0405	SCALE



FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(2DZ117)

W116E28V8R5X9

M7F8

B26C9

0A62B

SYMBOL  
O

ALPHA  
20.000

MACH  
80FLAP  
SPDRBK

PARAMETRIC VALUES  
.200 DELVON  
-12.000 RUDDER  
25.000 BETA

DATA SOURCE  
A1LRON  
20Z161  
10.000

REFERENCE INFORMATION  
SQ.FT.  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
SCALE

4.4119  
19.2259  
37.9359  
43.5974  
15.1875  
0.0405

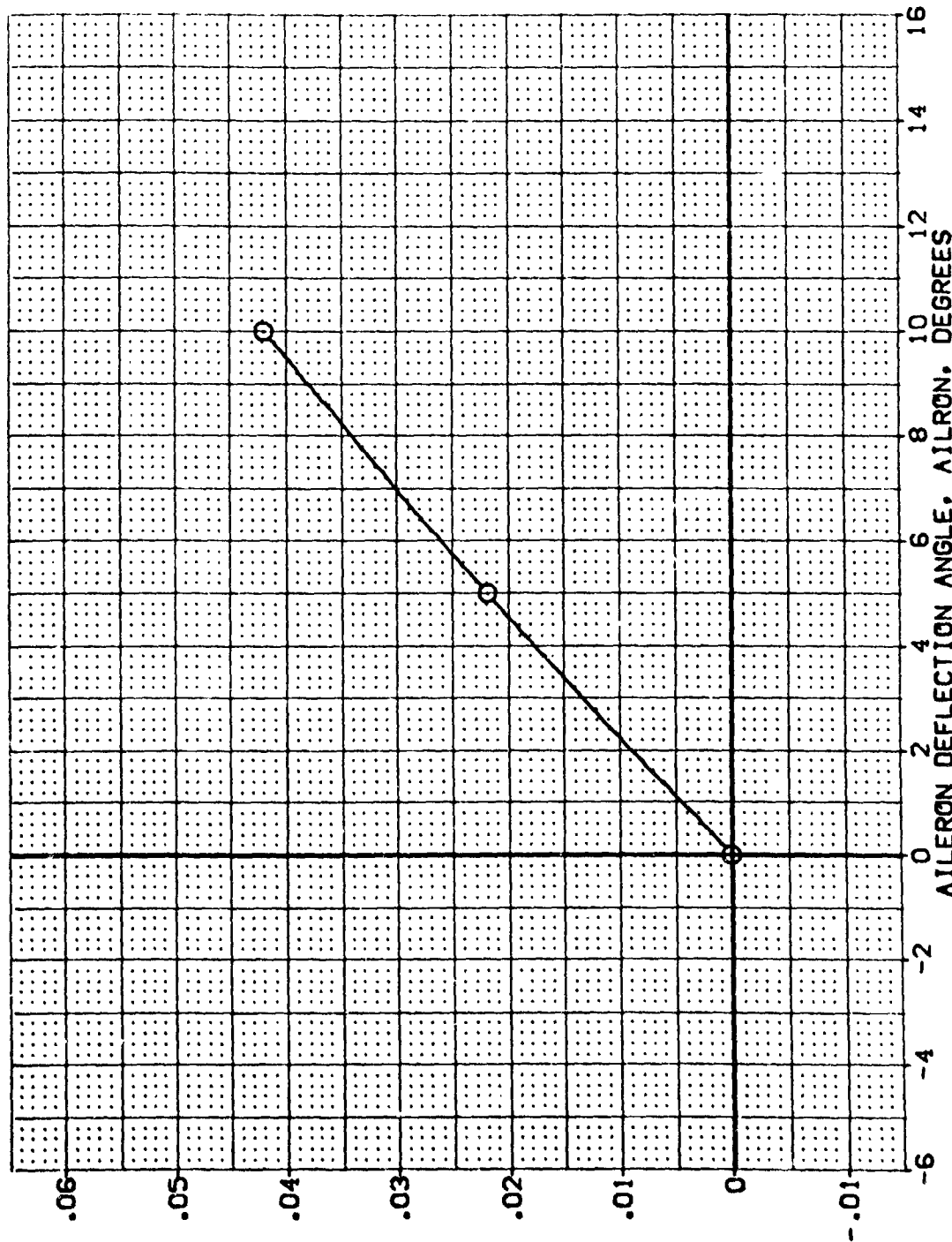


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	25.000	MACH	.200	DELTA	.000	DATASET	AIIRON	SREF	4.4119	SO.FT.	
BDFLAP	-12.000	RUDDER	.000	20Z117	.000	20Z161	5.000	LREF	19.2298	INCHES	
SPDRK	25.000	BETA	.000	20Z160	10.000			BREF	37.9359	INCHES	
								XPRP	43.5874	INCHES	
								YPRP	10.000	INCHES	
								ZPRP	15.1873	INCHES	
								SCALE	.0405	SCALE	

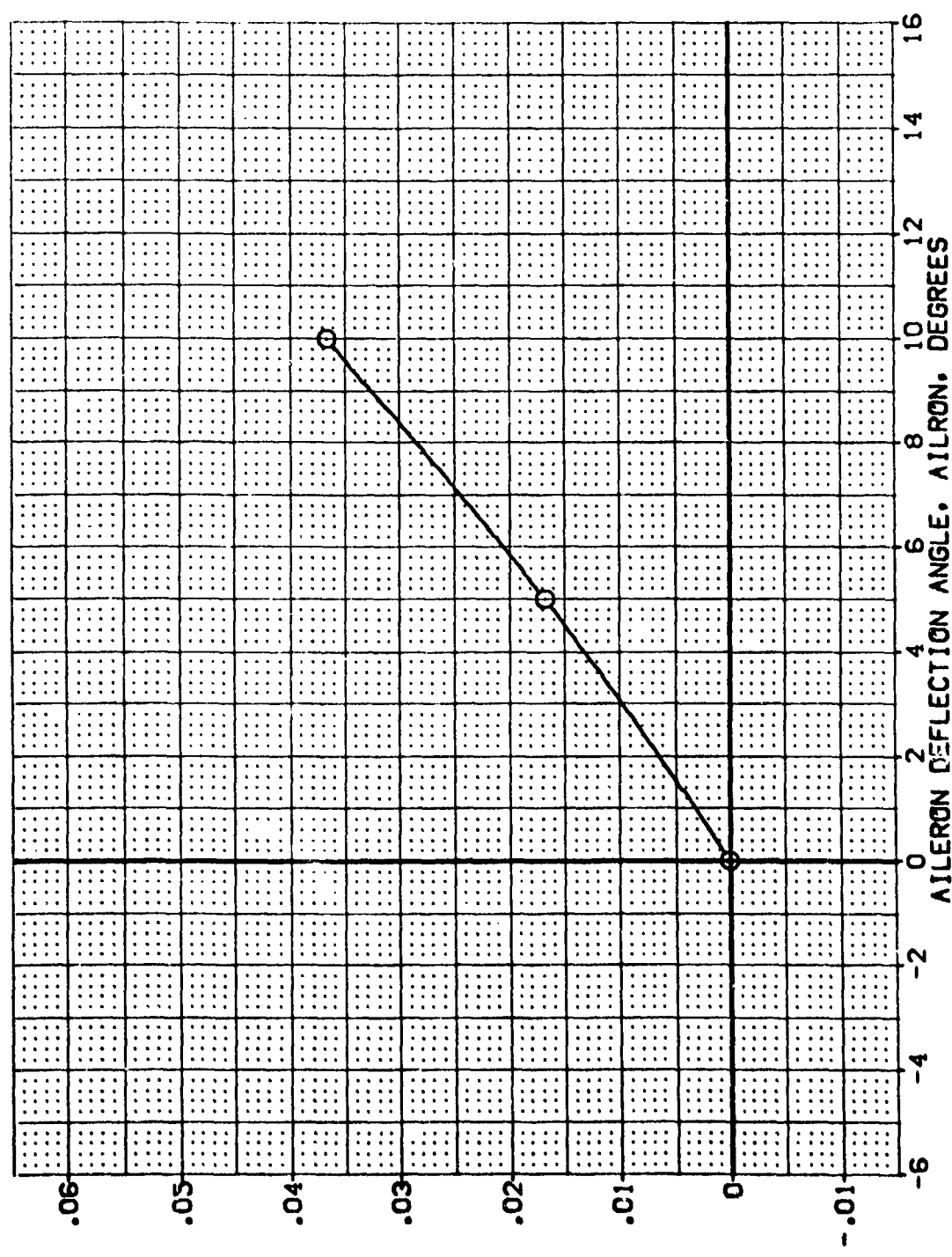


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 P7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	30.000		.000 DATASET	AILRON	SREF
			.000 20Z117	AILRON	LRREF
			.000 20Z160	AILRON	BRREF
				AILRON	XRREF
				AILRON	YRREF
				AILRON	ZRREF
				AILRON	SCALE
				AILRON	SCALE

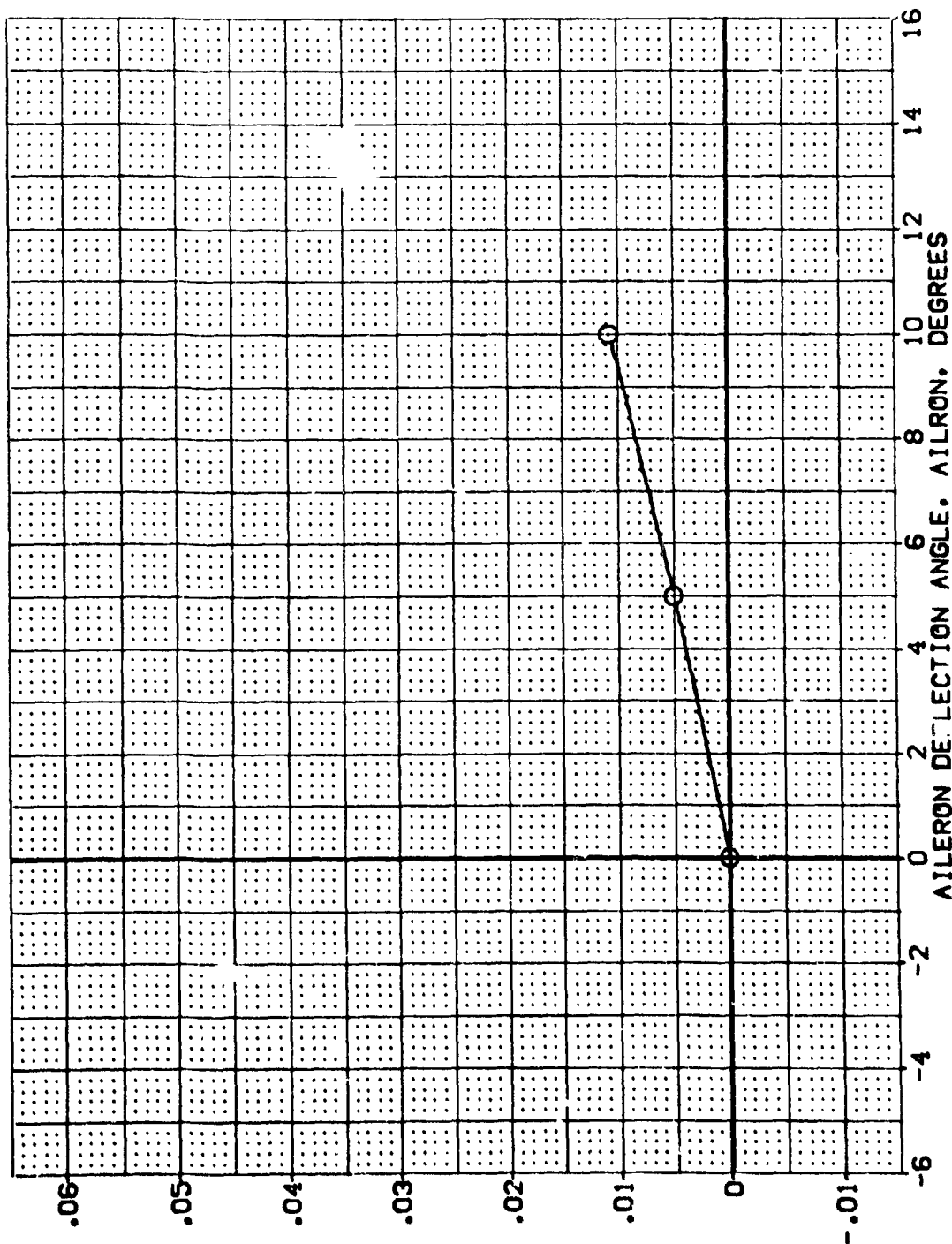


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 826C9 M7F8 W116E28V8R5X9 (20Z117)  
 SYMBOL ALP-4 .000  
 PARAMETRIC VALUES  
 MACH .200 DELVON  
 EDLAP -12.000 RUDDER  
 SPDRK 25.000 BETA  
 DATA SOURCE  
 DATASET 20Z117  
 DATASET 20Z161  
 AILRON 10.000  
 AILRON 5.000  
 REFERENCE INFORMATION  
 SQ.FT. 4.4119  
 LREF 19.2299  
 BREF 37.9359  
 XMRP 43.5974  
 YMRP .0000  
 ZMRP 15.1875  
 SCALE .0405  
 INCHES  
 INCHES  
 INCHES  
 INCHES  
 INCHES  
 INCHES

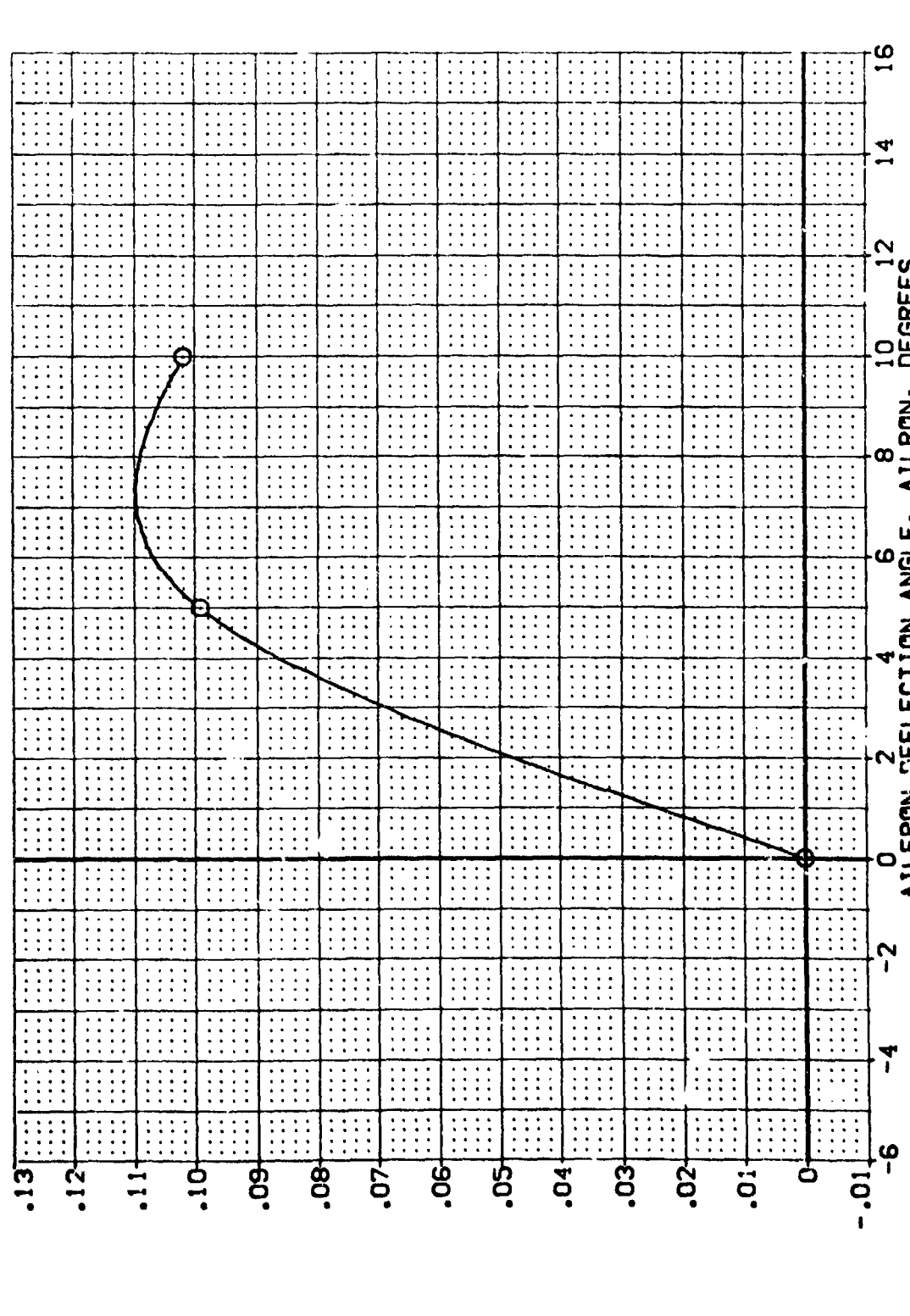


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(20Z117)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	5.000	BOFLAP	.200 DELVON	.000 DATASET	50.FT.
		SPOBRK	-12.000 RUDDER	.000 20Z117	INCHES
		BETA	25.000	.000 20Z160	INCHES
				10.000	INCHES
				.000	INCHES
				15.1875	INCHES
				SCALE	SCALE

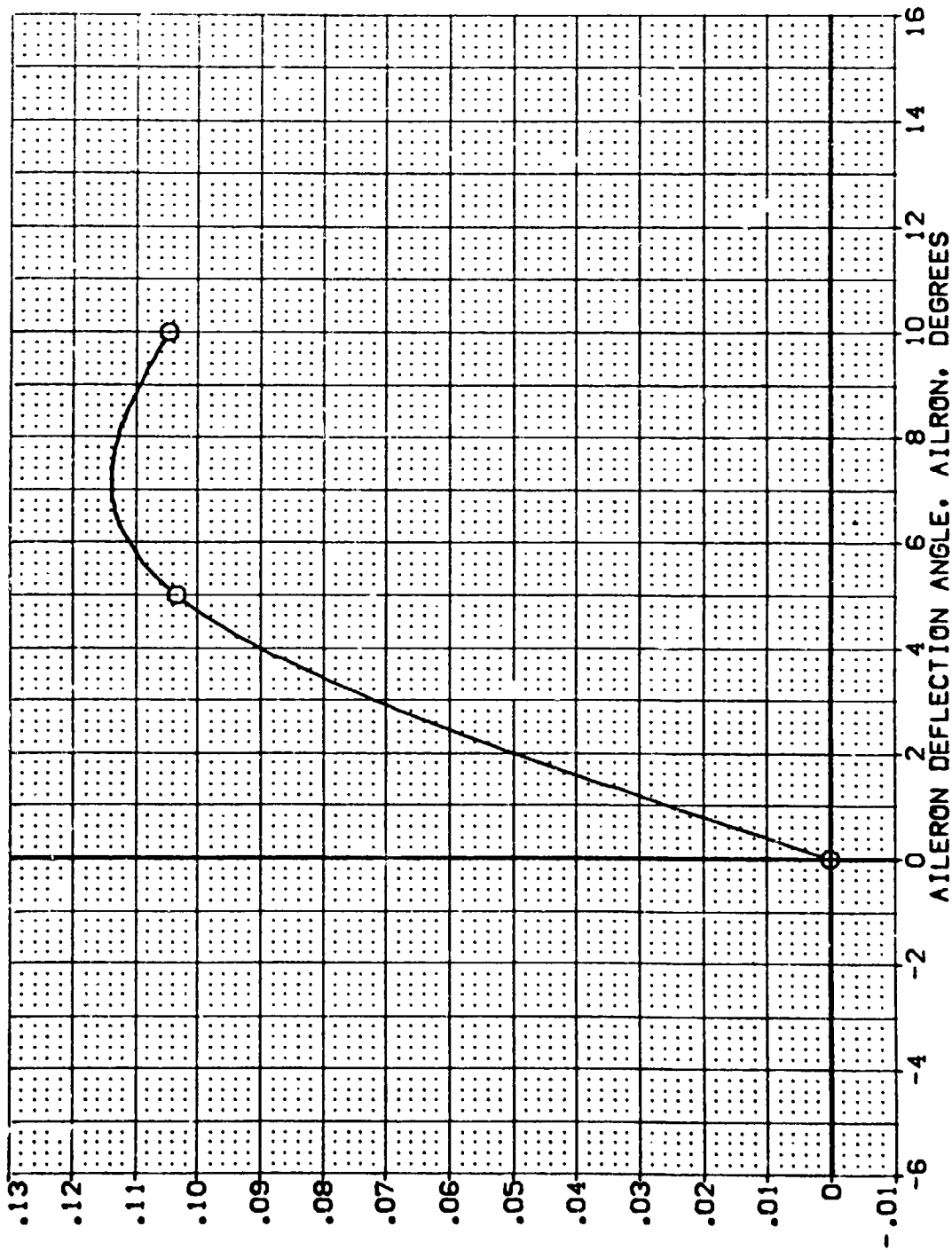


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



(20Z117)

0A628 B26C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	10.000	MACH	0.200	DELTA	0.000	DATA SET	AILRON	SREF	4.4118	SC.FT.	
BOFLAP	-12.000	RUDER	0.000	20Z117	0.000	20Z161	5.000	REF	19.2259	INCHES	
SPDRK	25.000	SETA	0.000	20Z160	10.000			REF	37.9359	INCHES	
								REF	43.5974	INCHES	
								REF	15.1875	INCHES	
								SCALE	.0405	SCALE	

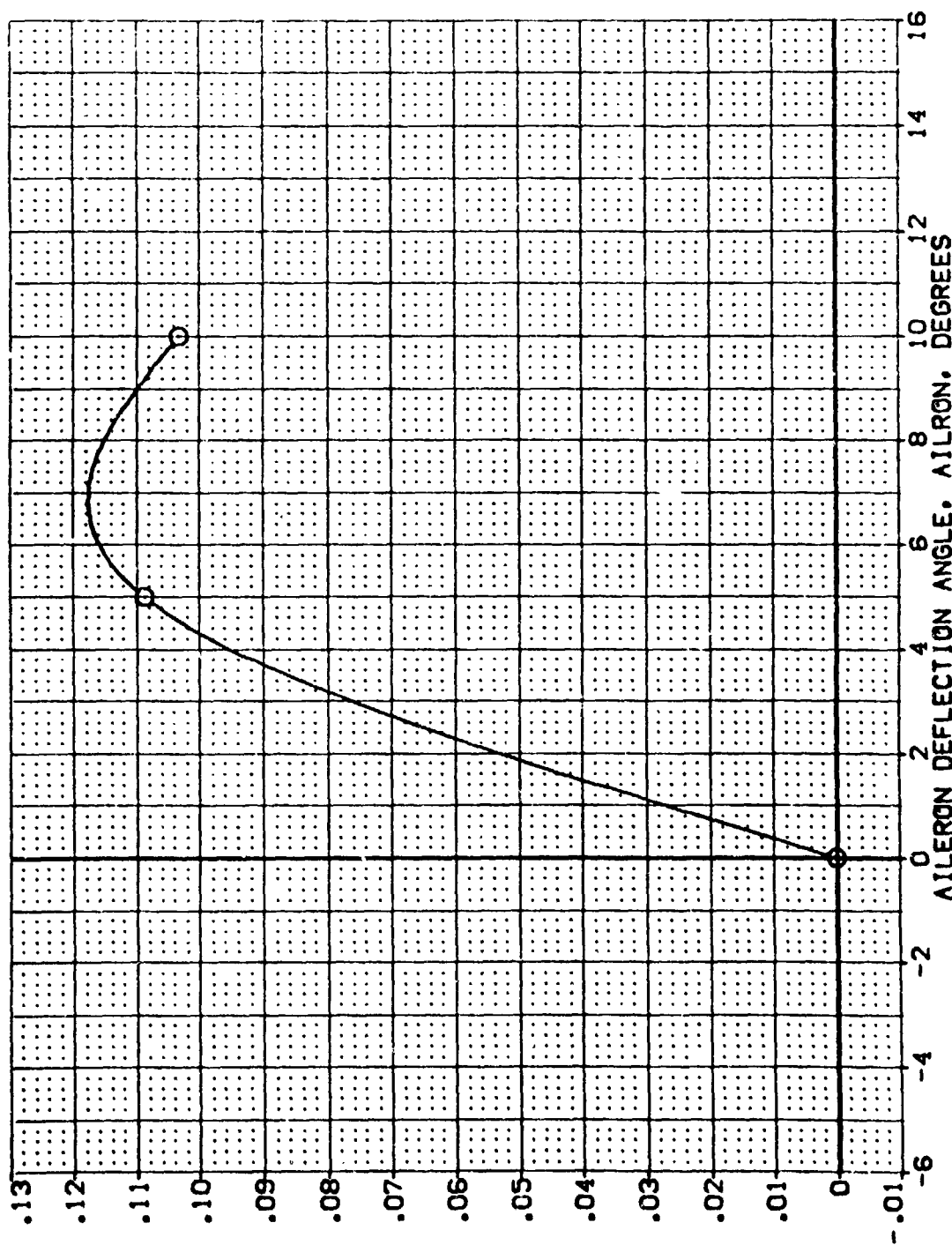


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

SREF	4.4119	SO.FT.
LREF	19.2299	INDES
SRF	37.9359	INDES
XPRP	43.5974	INDES
YPRP	.0200	INDES
ZPRP	15.1875	INDES
SCALE	.0405	SALE

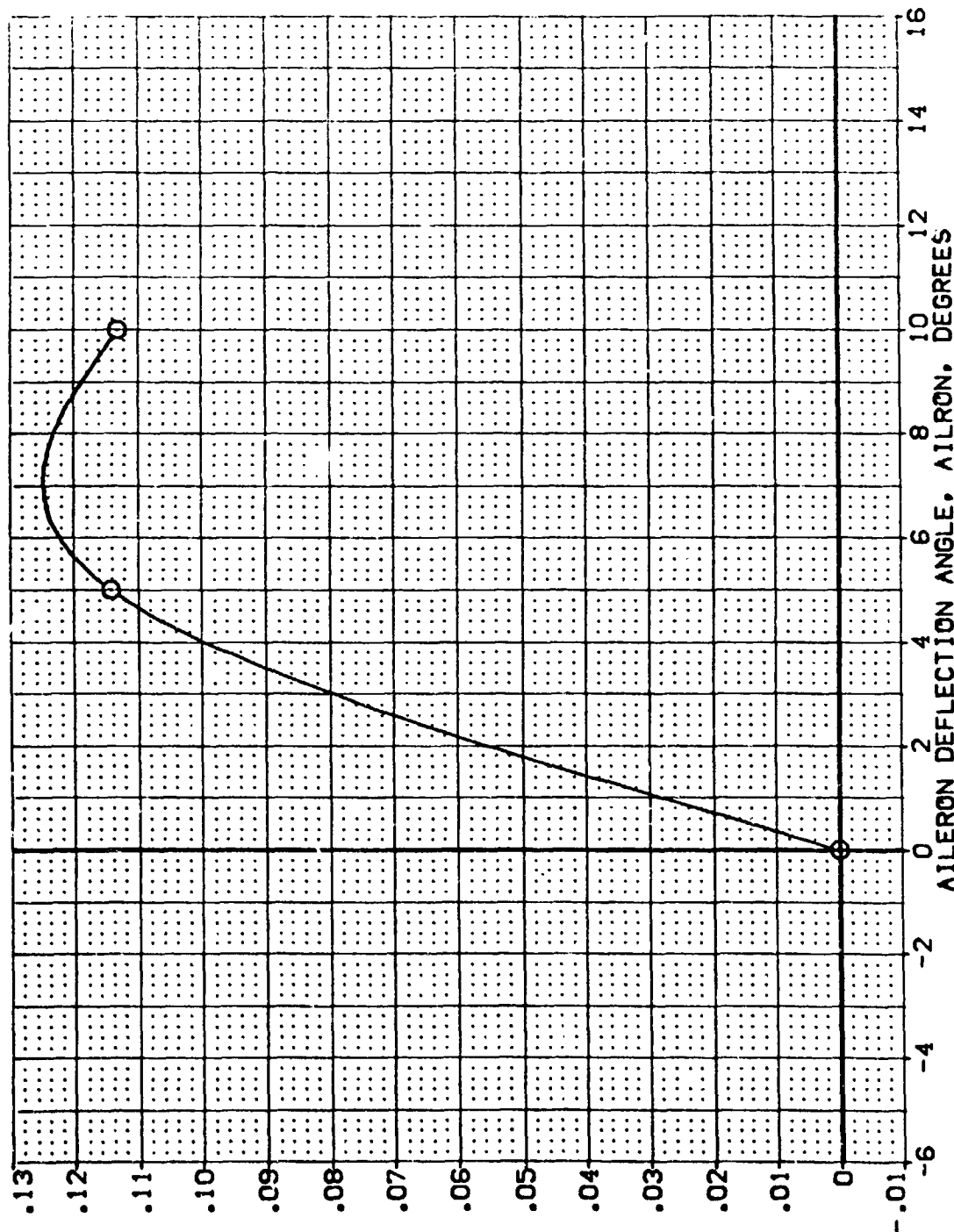


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(202117)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	20.000	MACH .200	DELVEN .000	SO. FT. 4.4119
		BOFLAP .000	20Z117 .000	INCHES 19.2299
		SPOERK .000	20Z160 .000	INCHES 37.9359
				INCHES 43.5974
				INCHES 15.0000
				INCHES 15.1873
				SCALE .0405

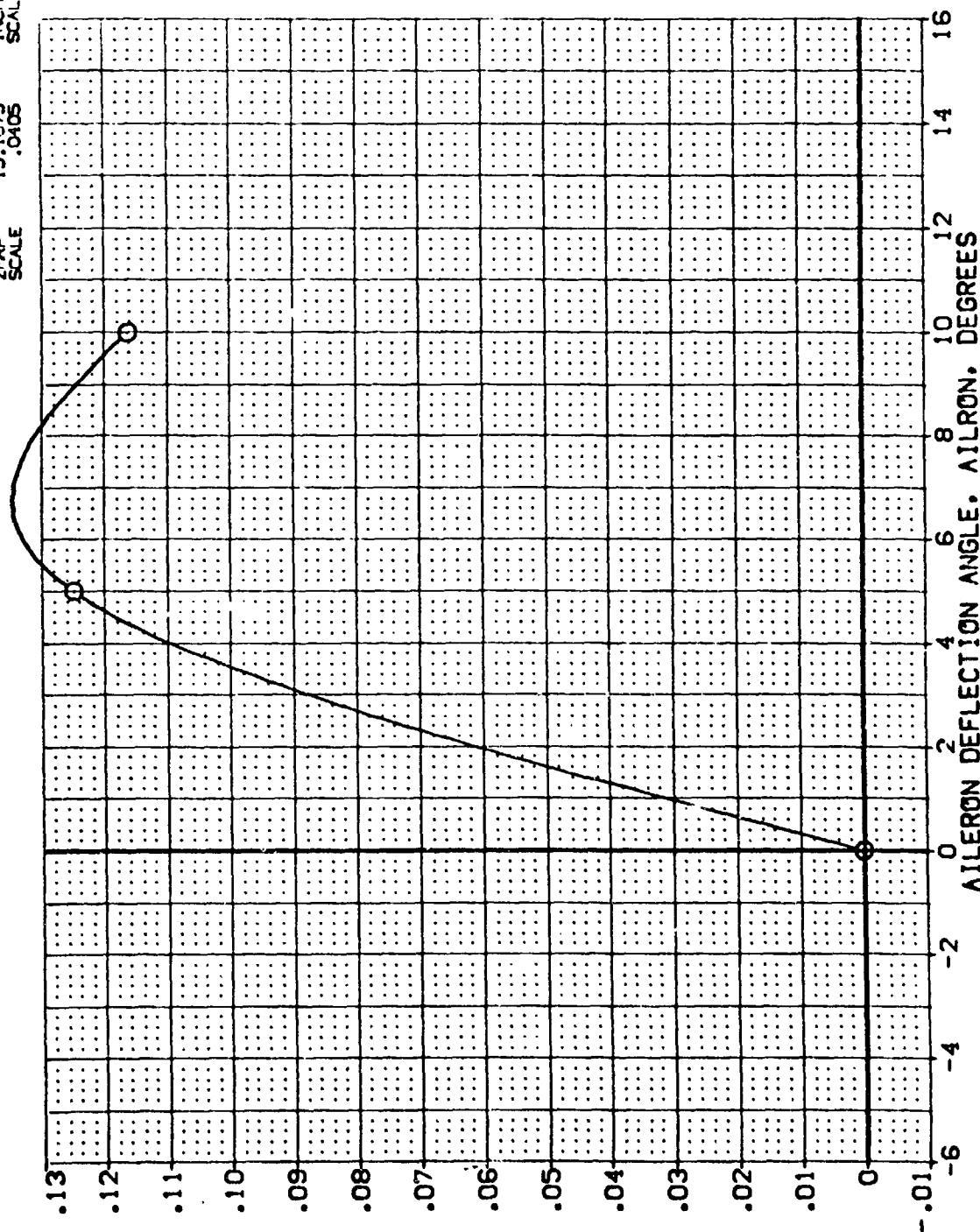


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	25.000	MACH	.200	DELTON	.000	DATASET	AILRON	SREF	4.4119	SO.FT.	
BOFLAP	-12.000	RLOOR	25.000	BETA	.000	20Z117	5.000	LREF	19.2259	INCHES	
SPDRK	25.000				.000	20Z160		BREF	37.9359	INCHES	
								XMRP	43.5974	INCHES	
								YMRP	.0000	INCHES	
								ZMRP	15.1875	INCHES	
								SCALE	.0405	SCALE	

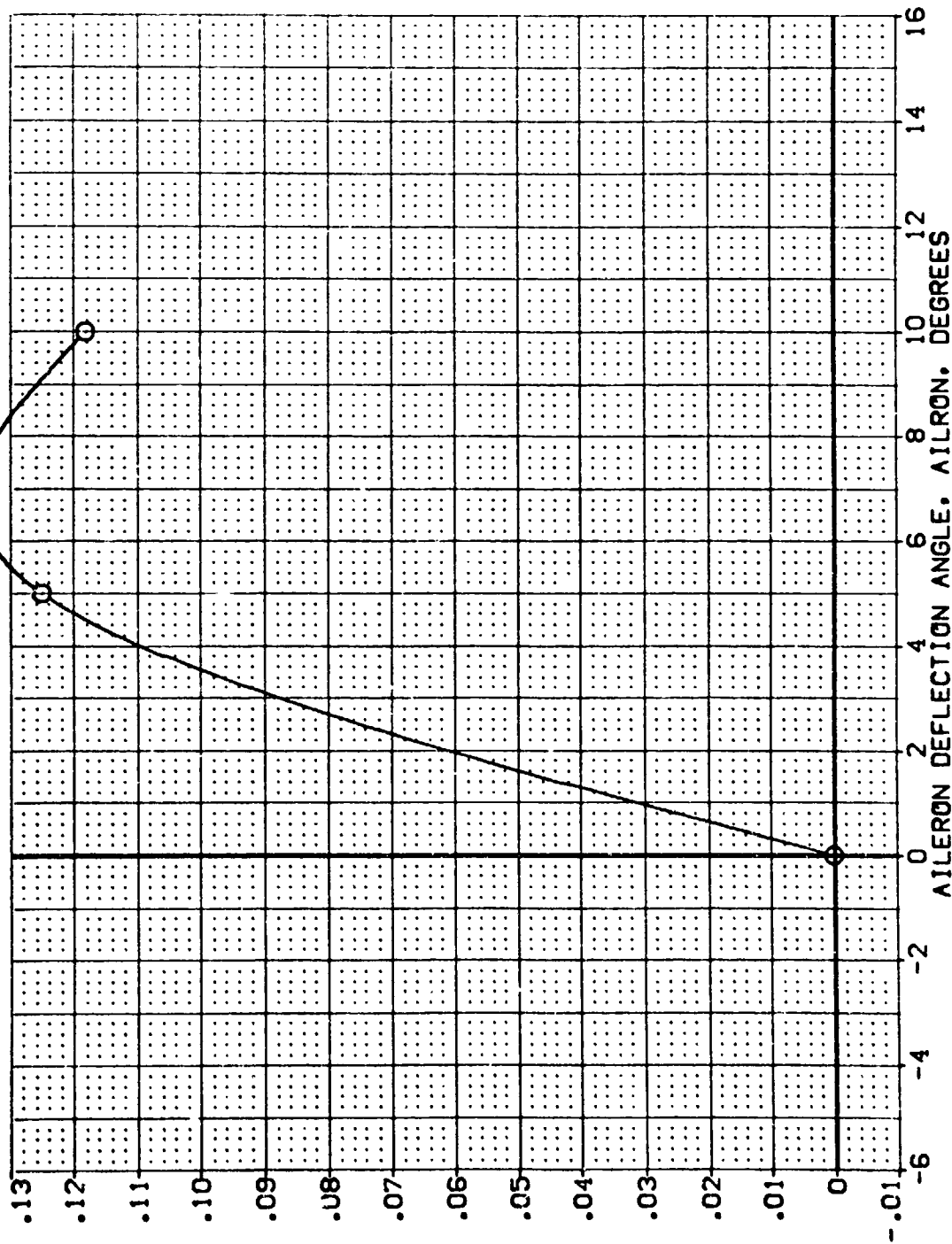


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(20Z117)

0A628 826C9 M7F8 W116E28V8R5X9

SYMBOL  
O

ALPHA  
30.000

PARAMETRIC VALUES  
MACH .200  
DELTA  
-12.000  
SPDRX 25.000  
DELTA  
RUDER  
BETA

DATA SOURCE  
AILRON  
DATASET  
20Z117  
20Z160  
AILRON  
5.000  
10.000

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
X-REF  
Y-REF  
Z-REF  
SCALE  
4.4119  
19.2299  
37.9359  
43.5374  
.0000  
15.1875  
.0405

SO.FT.  
INCHES  
INCHES  
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INCHES  
INCHES  
SCALE

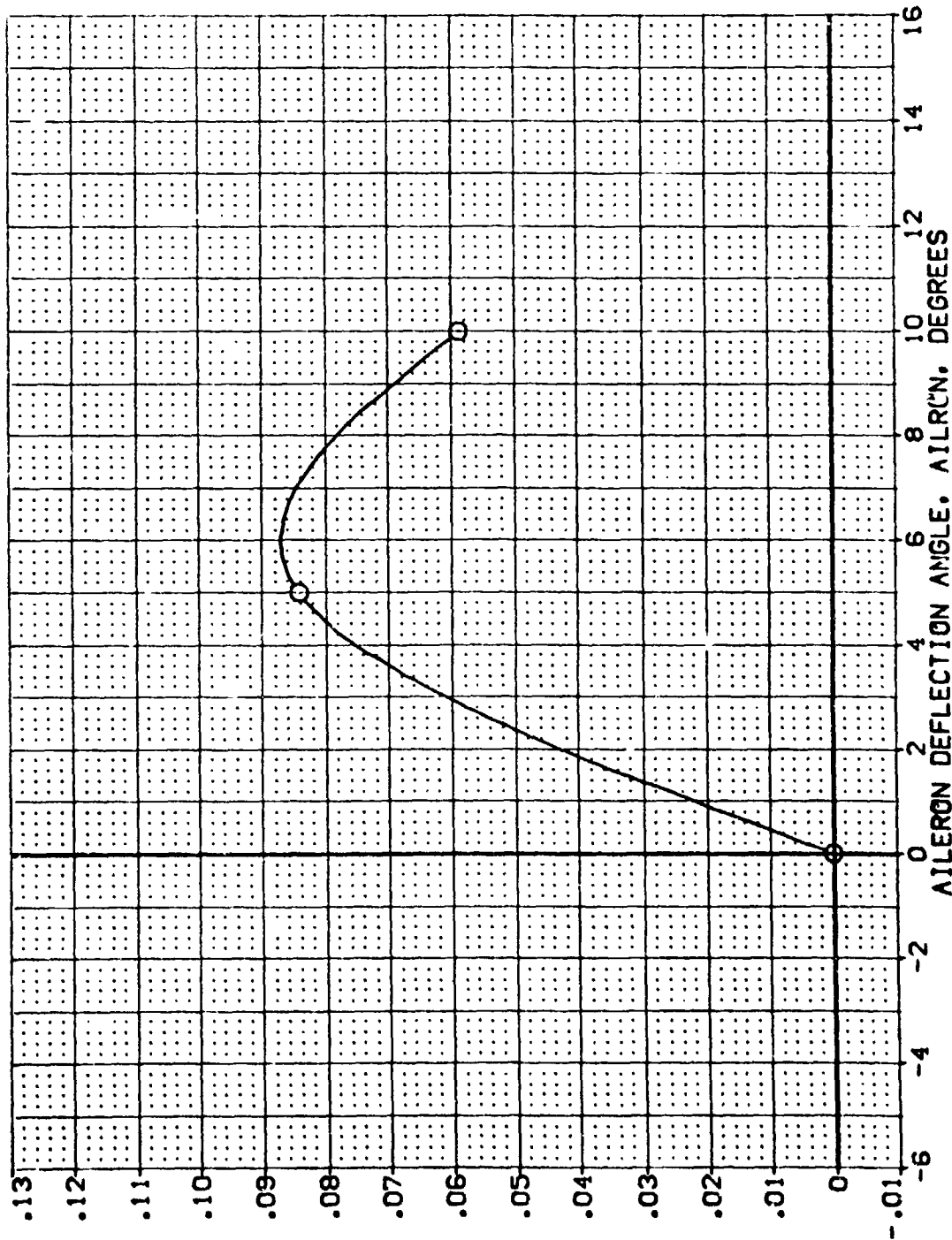


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)  
 SYMBL ALPHA .000 MACH .200 DELVEN .000 DATASET AILRON SREF SQ.FT.  
 O .000 BOFLAP -12.000 RUDDER .000 20Z117 .000 LREF 19.2298 INCHES  
 SPOBRK 25.000 BETA .000 20Z160 10.000 XMRP 37.9359 INCHES  
 REFERENCE INFORMATION  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

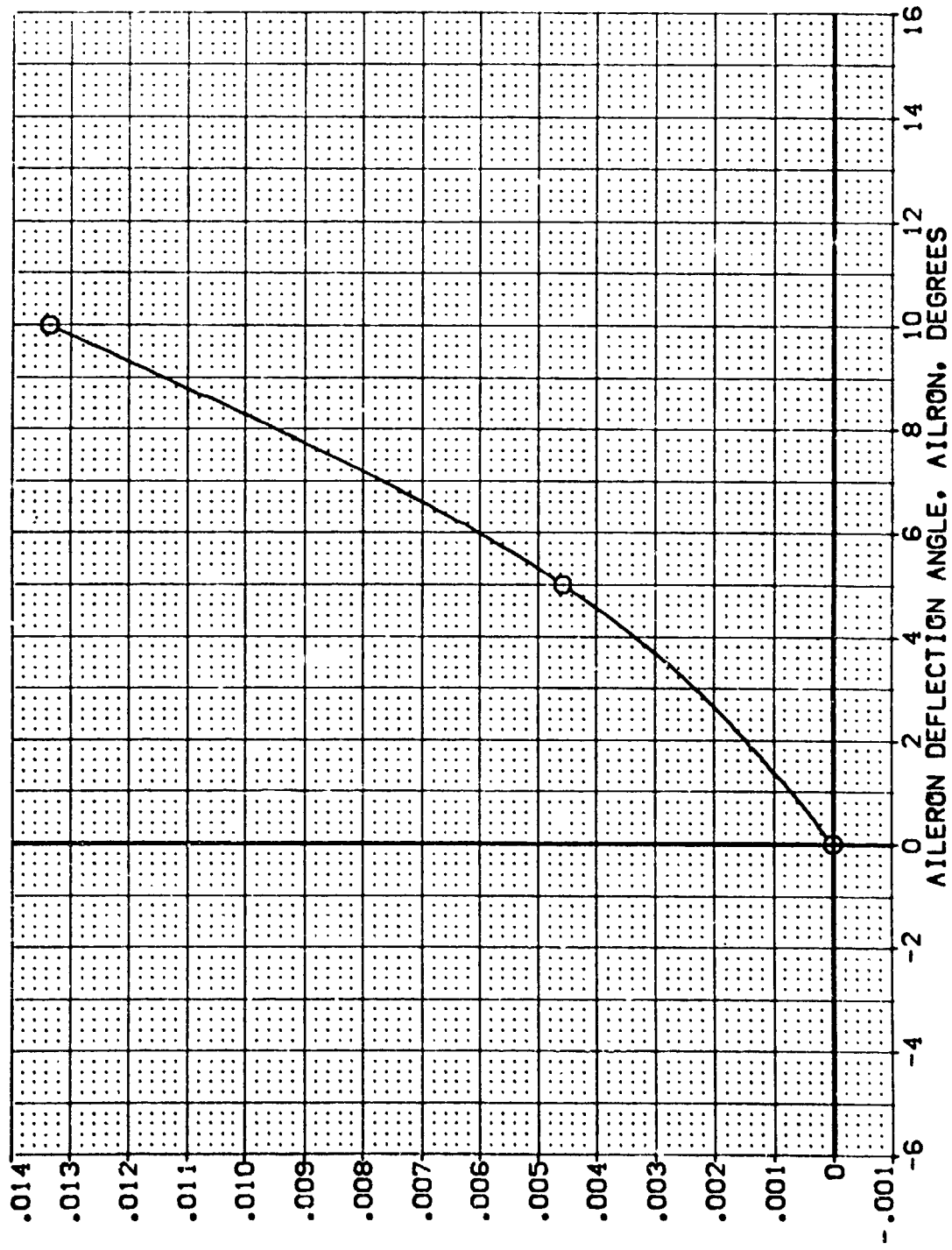


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
O		MACH	10.000	DELVON	.200	AILRON	.000	SREF	4.4119
		80FLAP		RUDER	-12.000	AILRON	.000	LREF	19.2259
		SPOBRK		BETA	25.000	20Z117	.000	SREF	37.5359
						20Z160	.000	XPRP	43.5574
								YPRP	.0000
								ZPRP	15.1875
								SCALE	.0405

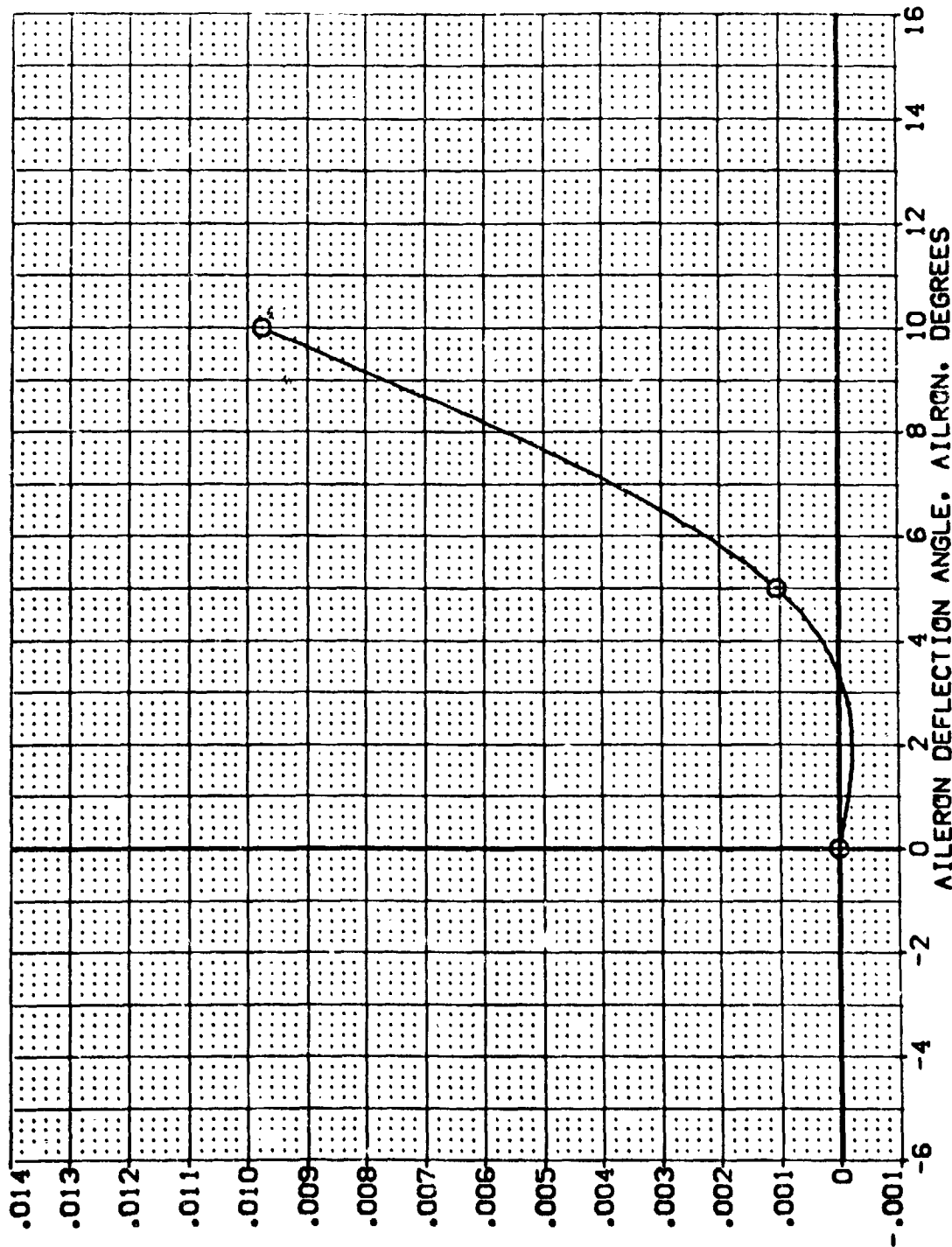


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE





0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MAC	BOFLAP	SPDRK	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	20.000				.200 DELVON	.000 DATASET	SRF 4.4119 SQ.FT.
					-12.000 RUDDER	.000 20Z117	LRP 19.2299 INCHES
					25.000 BETA	.000 20Z160	BRF 37.9359 INCHES
							YMRP 43.5974 INCHES
							ZMRP .0000 INCHES
							SCALE 15.1875 INCHES
							SCALE .0405

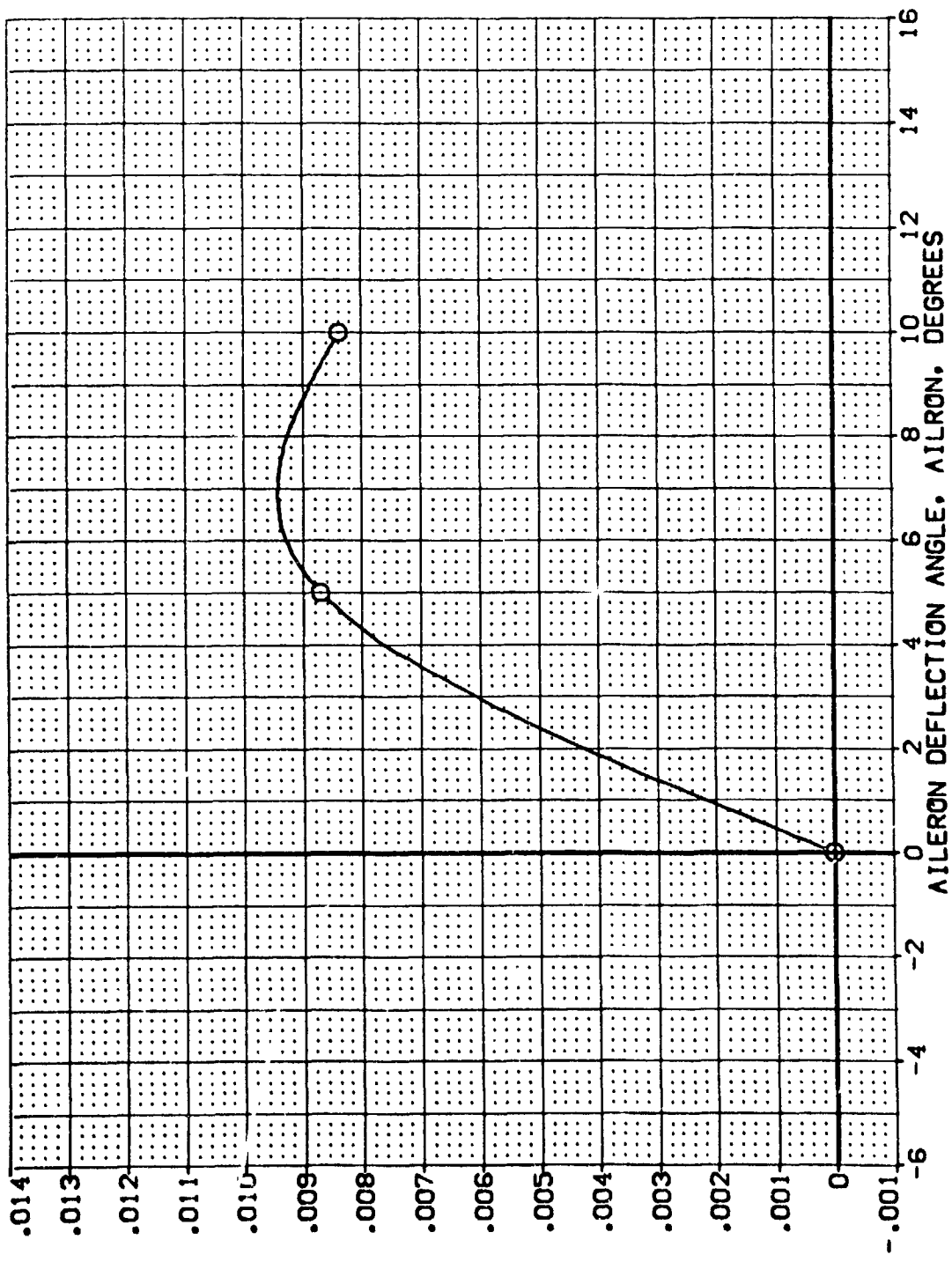


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(20Z117)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	WCH	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA
O	25.000	WCH	.200	DELTA	.000	DELTA	DELTA	DELTA	DELTA	DELTA
		DELTA	-12.000	DELTA	.000	DELTA	DELTA	DELTA	DELTA	DELTA
		DELTA	25.000	DELTA	.000	DELTA	DELTA	DELTA	DELTA	DELTA
		DELTA	25.000	DELTA	.000	DELTA	DELTA	DELTA	DELTA	DELTA

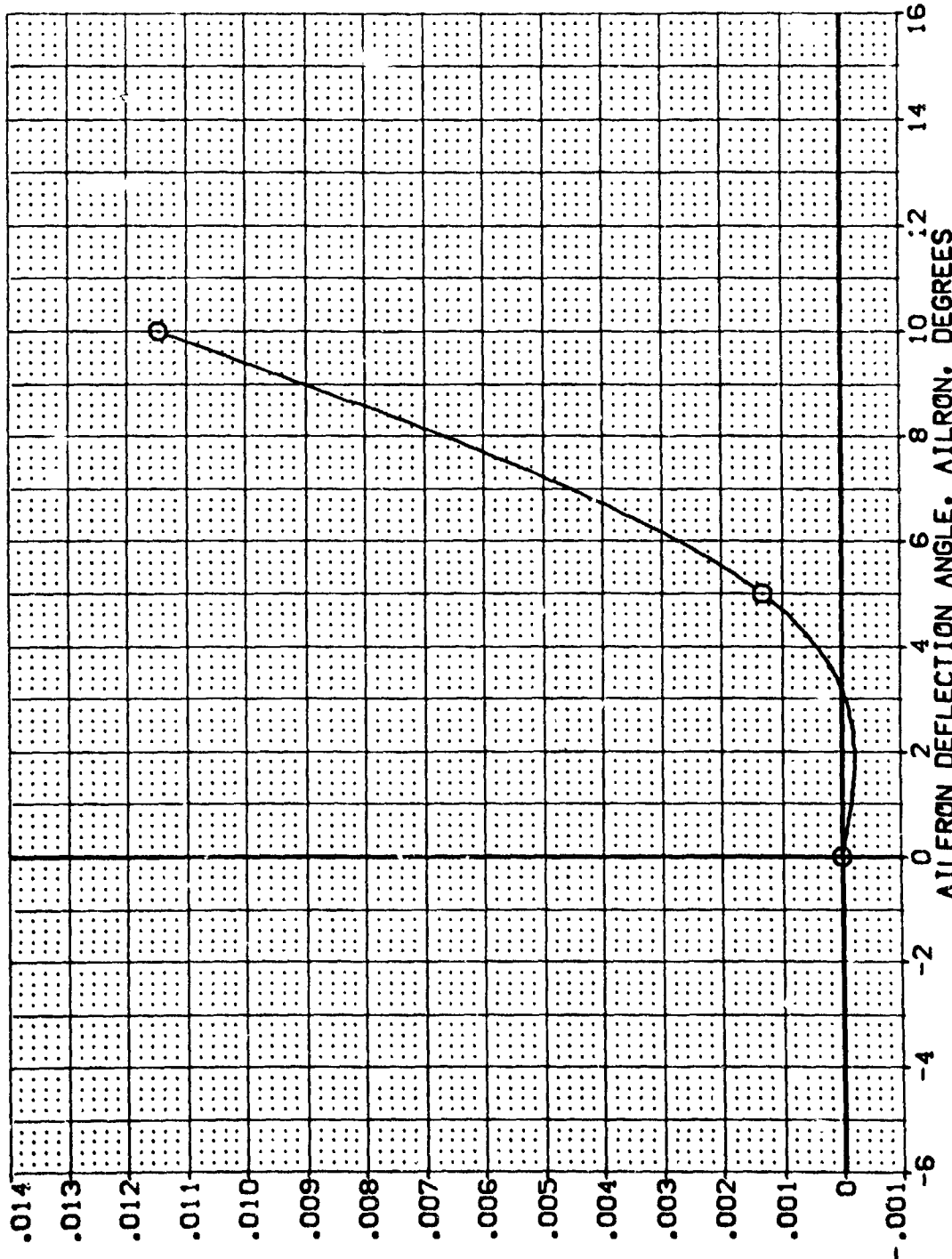


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



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Q

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	.000	.200	DELTA	AILRON	SREF 4.4119 SQ.FT.
		-12.000	RUDDER	.000	LREF 19.2289 INCHES
		25.000	BETA	10.000	BREF 37.9359 INCHES
					YMRP 43.5974 INCHES
					ZMRP .0000 INCHES
					SCALE 15.1875 INCHES
					SCALE .0405

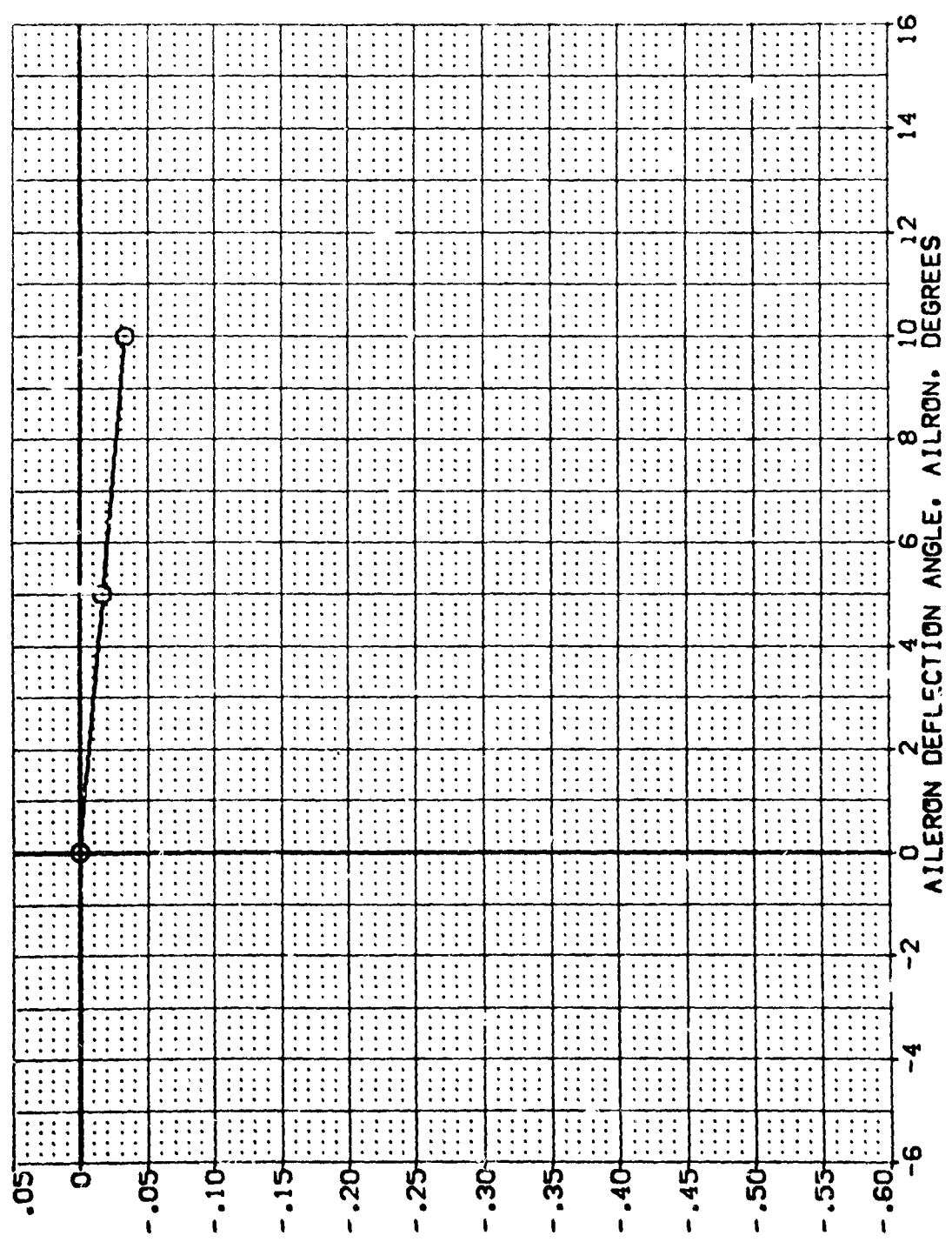


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	BOFLAP	SPDRK	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	5.000				.200 DELVON	AILRON	4.4119
					-12.000 RUDDER	20Z117	19.2299
					25.000 ZETA	20Z156	37.9359
						10.000	43.5974
							.0000
							15.1875
							.0405
							SCALE

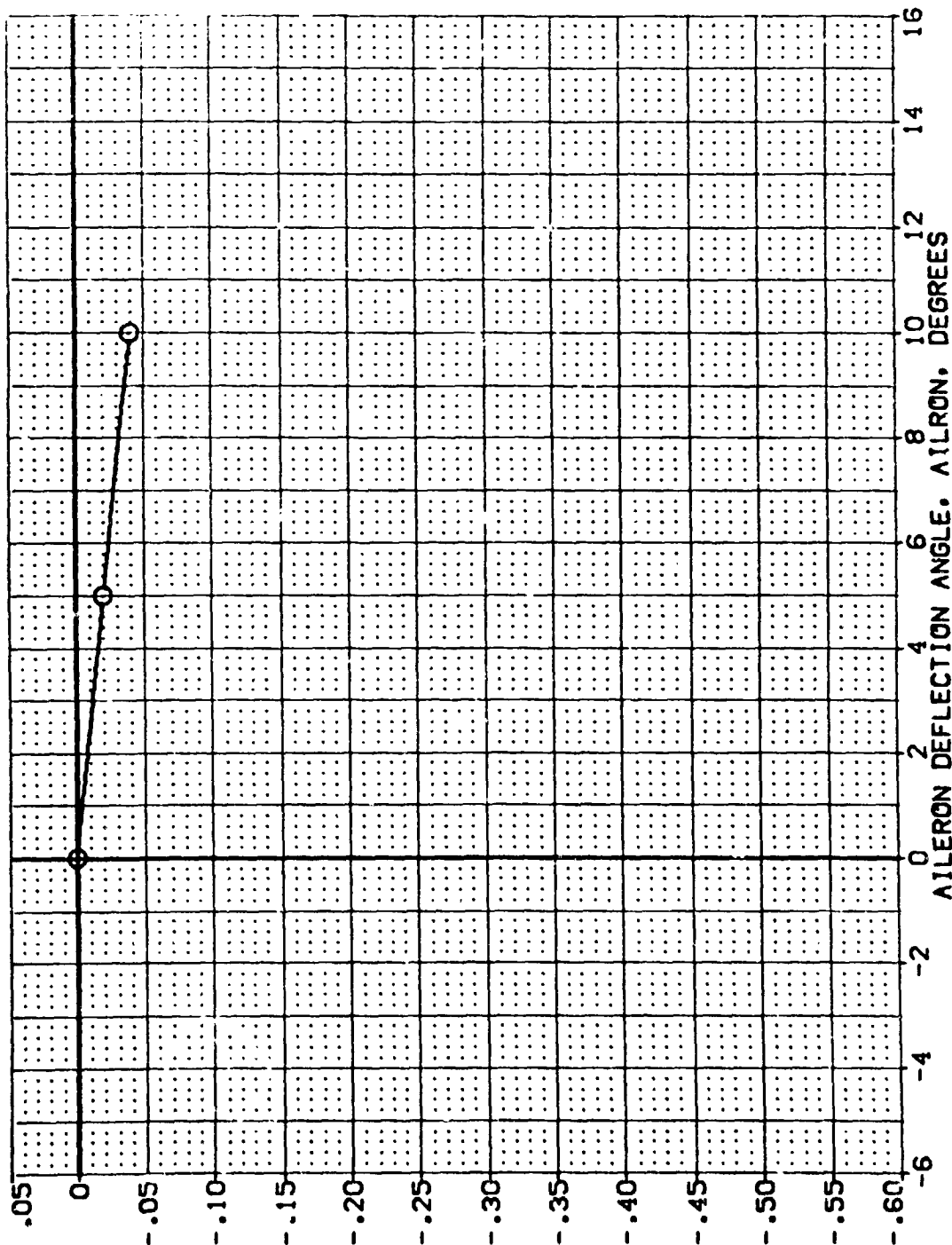


FIG 55 AILERON EFFECTIVENESS. BASELINE ELEVON GAP, 25 DEG FLARE



0A62B B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
	ALPHA	MACH	BOFLAP	SPDRK	.000	.000	.000	.000	SPREF	LREF	4.4115	50.FT.
O	10.000				.000	.000	.000	.000	BREF	37.9359	19.2299	INCHES
					.000	.000	.000	.000	XMRP	43.5874	37.9359	INCHES
					.000	.000	.000	.000	YMRP	15.1875	43.5874	INCHES
					.000	.000	.000	.000	ZMRP		15.1875	INCHES
					.000	.000	.000	.000	SCALE		.0405	SCALE

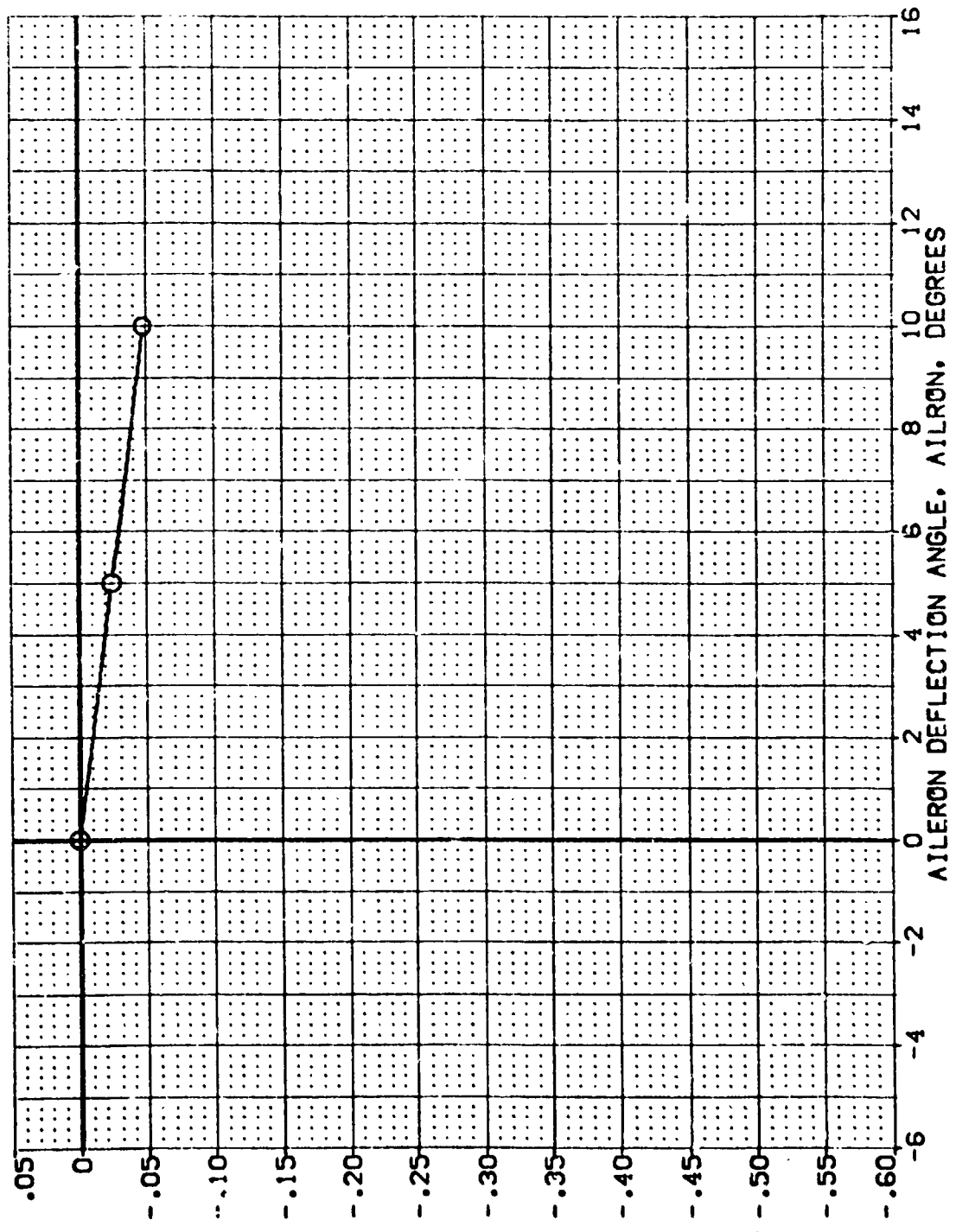


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	15.000				
		BOFLAP	.200 DELVON	.000 DATASET	SREF
		SPDRK	-12.000 RUDDER	.000 20Z117	LREF
			25.000 BETA	.000 20Z158	BREF
				10.000	XMRP
					YMRP
					ZMRP
					SCALE
					4.4119 SQ.FT.
					19.2289 INCHES
					37.9359 INCHES
					43.5874 INCHES
					.0000 INCHES
					15.1875 INCHES
					.0405 SCALE

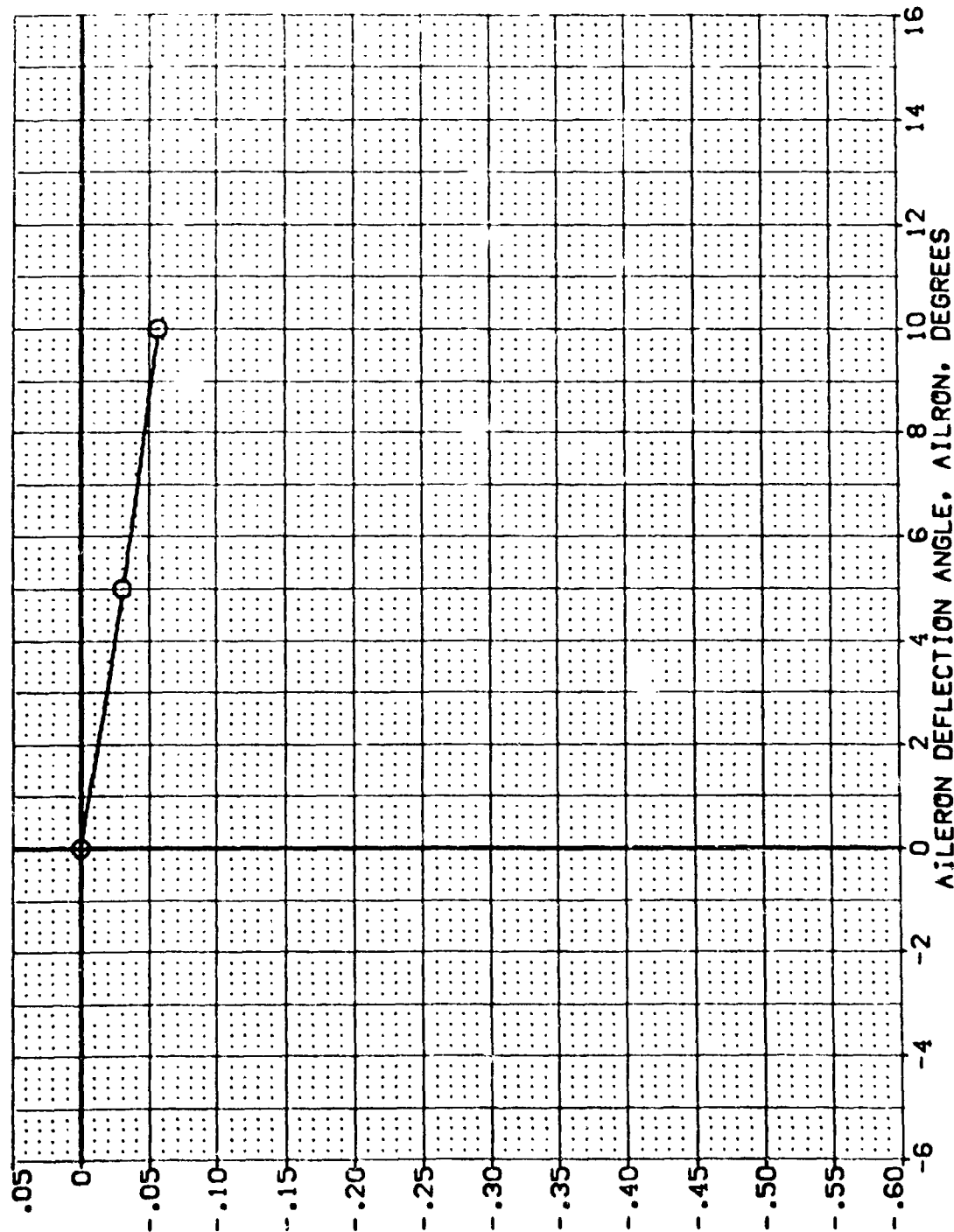


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



**CA**

**Symbol**



**PAGE 733**

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION	
		MACH	DELTA	DELTA	DELTA	ATLON	ATLON	SREF	SO.FT.
O	25.000	80FLAP	.200	.000	.000	.000	.000	19.2299	INCHES
		SPDRK	-12.000	.000	.000	10.000	5.000	37.9359	INCHES
			25.000	.000	.000			43.5974	INCHES
								15.1875	INCHES
								.0405	SCALE

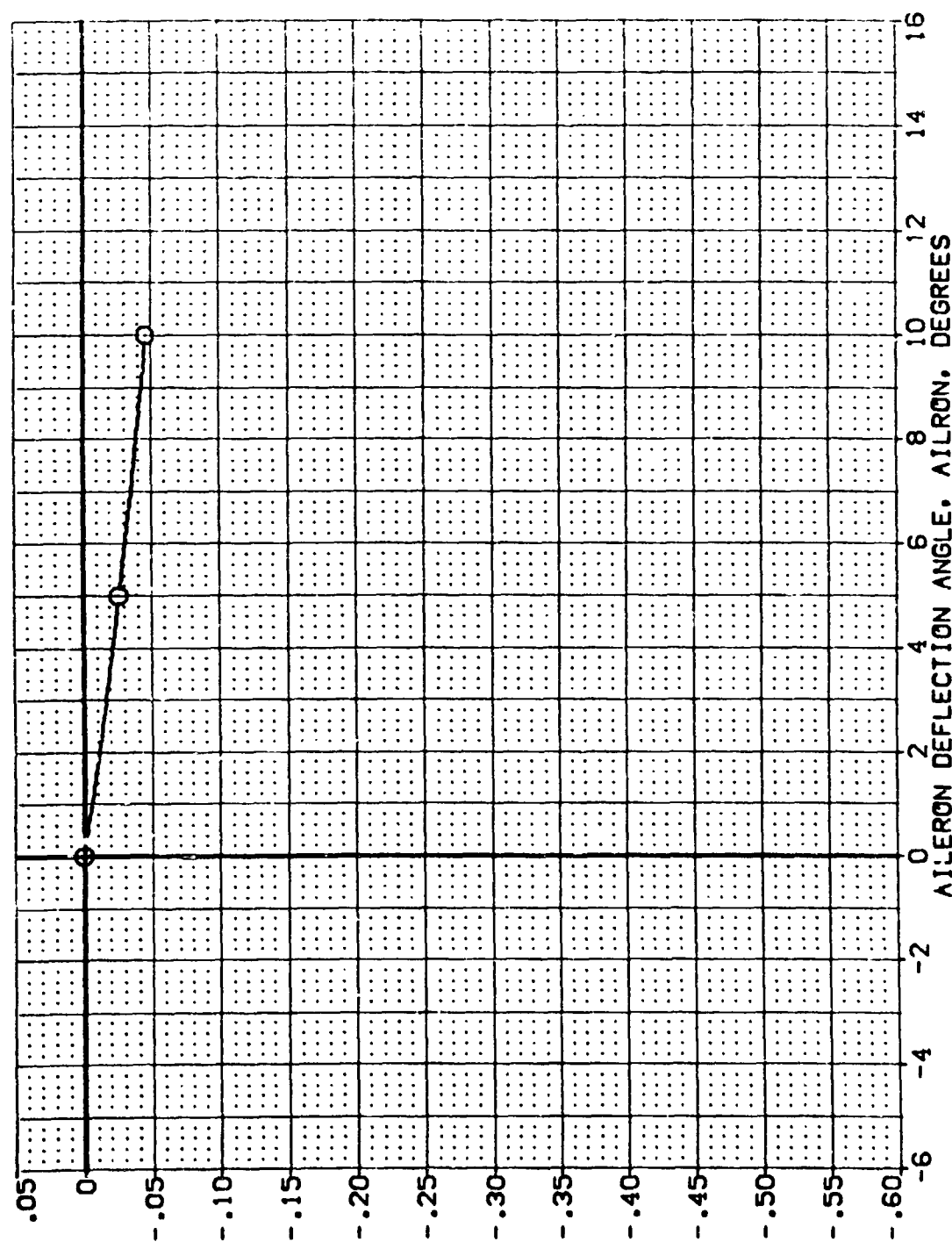
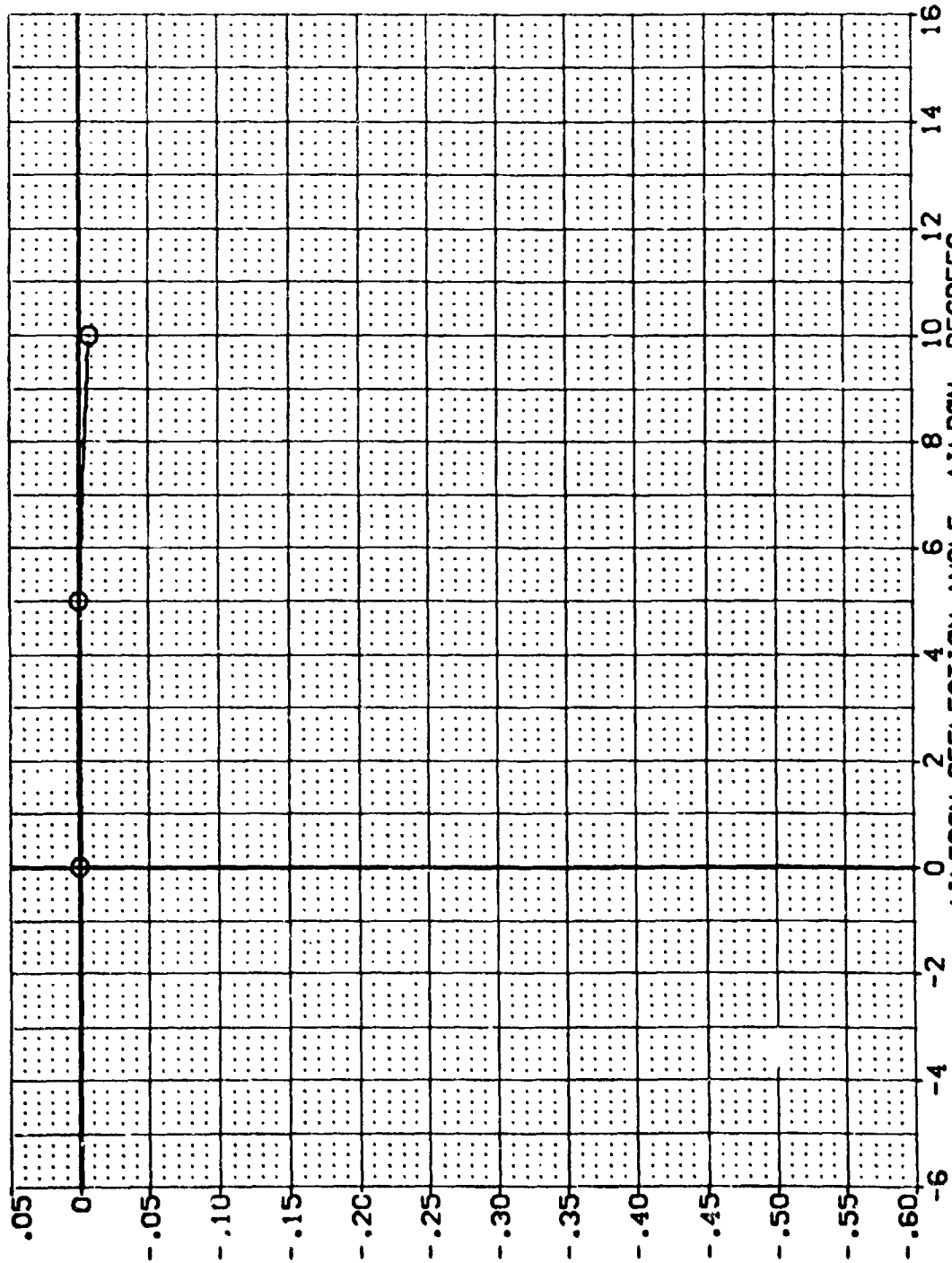


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
		MACH	DELTA	DELTA	AILRON	DATA	AILRON	SREF	AILRON	SCALE
○	30.000	80FLAP	.200	DELTA	.000	20Z117	.000	REF	5.000	19.2258
		SPDRK	-12.000	RLOOR	.000	20Z158	10.000	REF	5.000	37.9659
			25.000	BETA	.000	20Z158		REF	5.000	43.5974
								REF	5.000	.0000
								REF	5.000	15.1875
								REF	5.000	.0405



INCREMENTAL SIDE FORCE COEFFICIENT, CY

FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION				
O	.000		.200	DELTA	.000	DELTA	AILRON	20Z117	AILRON	5.000	REF	4.4118	SQ.FT.
		EDFLAP	-12.000	RUDER	.000	20Z117	.000	REF	19.2239	INCHES			
		SPOROK	25.000	BETA	.000	20Z156	10.000	REF	37.5359	INCHES			
								REF	43.5974	INCHES			
								REF	.0000	INCHES			
								REF	15.1875	INCHES			
								REF	.0405	SCALE			

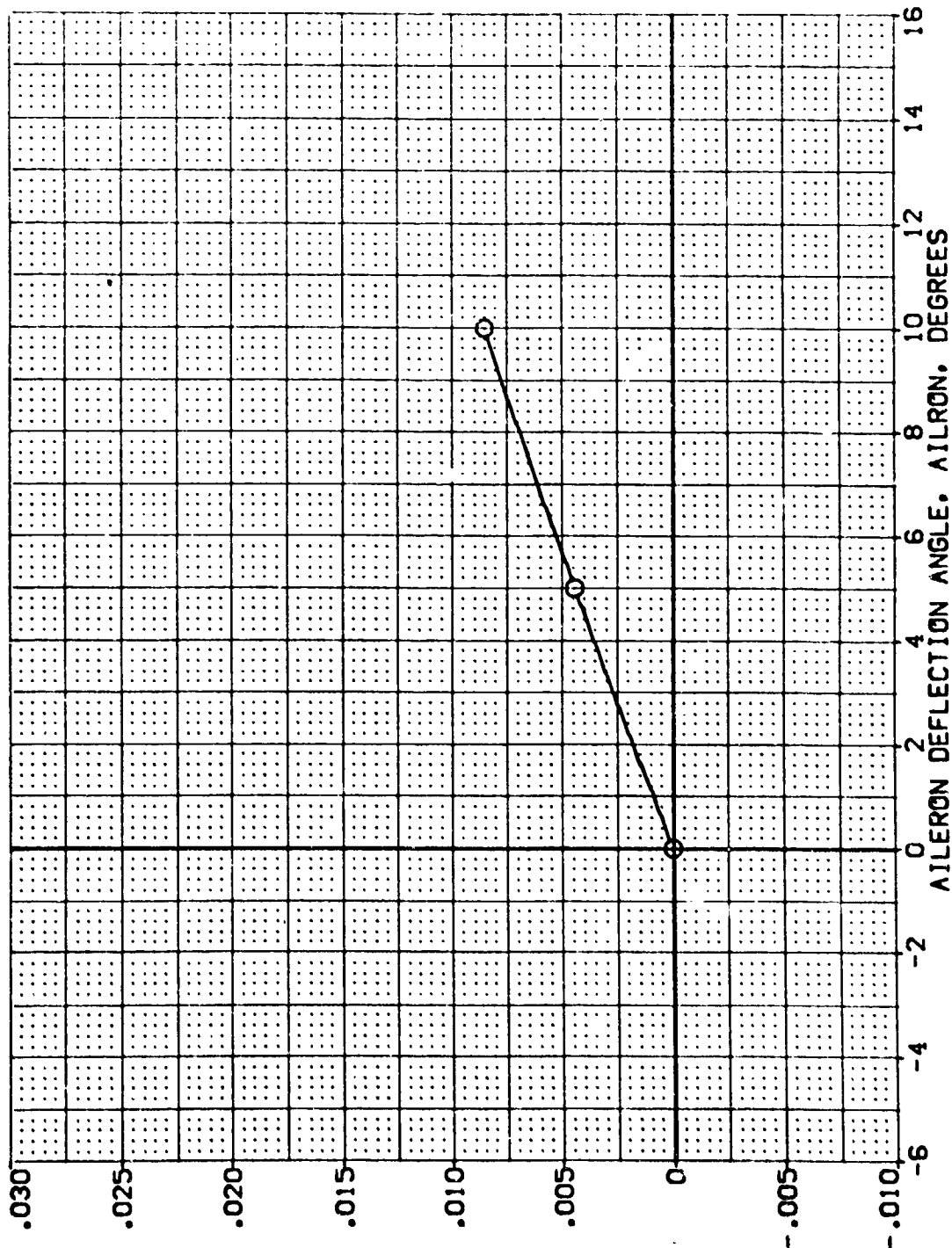


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

REFERENCE INFORMATION	
4.4119	SQ.FT.
19.2299	INCHES
37.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

SCALE

AIRLON  
5.000

**DATASET**  
**202156**

FACE

888

DATE: 10/1/78  
AIR: 10/1/78

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**Supplemental**

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100

*Journal of Management Education* 36(7) 809-824

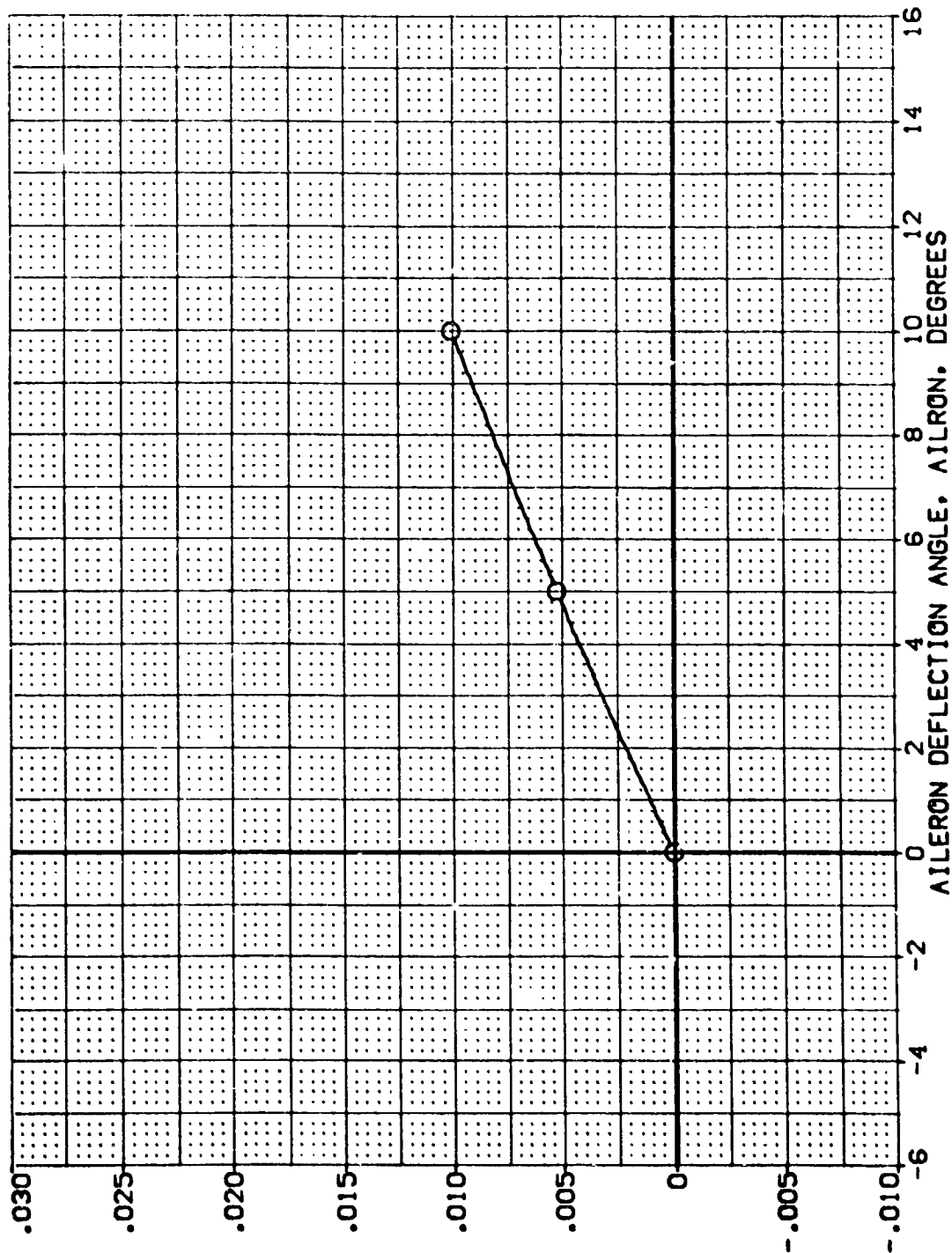


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 026C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL ALPHA 10.000  
 0

PARAMETRIC VALUES  
 MACH .200  
 DELVON -12.000  
 RUDDER 25.000  
 BETA

DATA SOURCE  
 DATASET 20Z117  
 AILRON 10.000  
 DATASET 20Z156  
 AILRON 10.000

REFERENCE INFORMATION  
 SREF 4.4119 50 FT.  
 LREF 19.2259 INCHES  
 BREF 37.9359 INCHES  
 XPRP 43.5574 INCHES  
 YPRP .0000 INCHES  
 ZPRP 15.1875 INCHES  
 SCALE .0405 SCALE

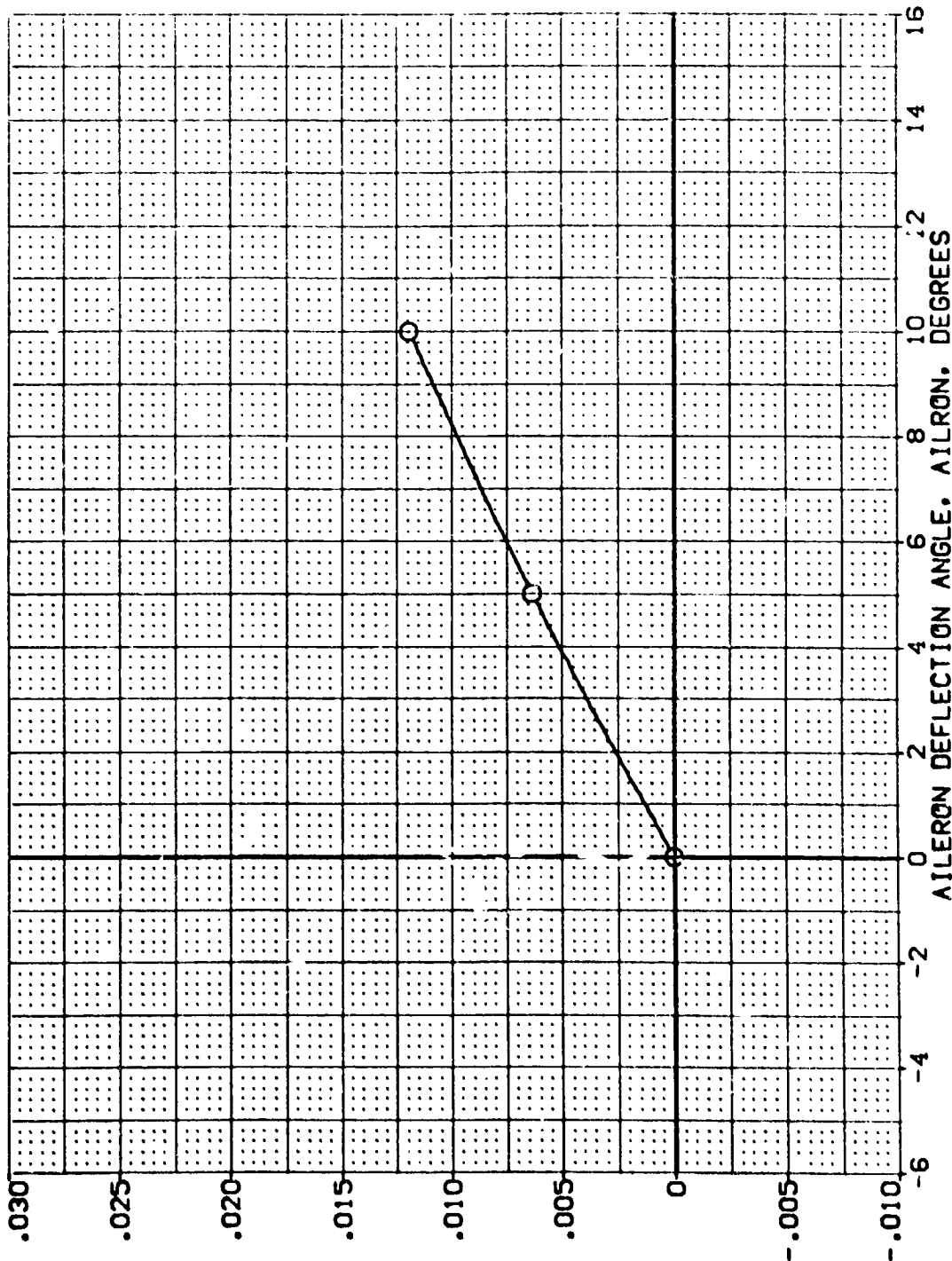


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(20Z117)

0A628 B26C9 M7F8 W16E26V8R5X9

SYMBOL  
O

ALPHA 15.000  
MACH 8.000  
BUFLAP 12.000  
SPOBRK 25.000  
PARAMETRIC VALUES  
DEL VON .200  
RUDDER -12.000  
BETA 25.000  
DATA SOURCE  
AILRON 10.000  
DATASET 20Z117  
AILRON 10.000  
DATASET 20Z156  
AILRON 5.000  
SREF 4.4119  
LREF 19.2289  
BREF 37.9359  
XPRP 43.5574  
YPRP 15.0000  
ZPRP 15.1875  
SCALE .0405



FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	20.000	.200	DELTON	0.000	4.4119 SQ.FT.
	80FLAP	-12.000	RUDER	0.000	19.2289 INCHES
	90BRK	25.000	BETA	0.000	37.5359 INCHES
				10.000	43.5974 INCHES
				0.000	15.1875 INCHES
				0.000	0.0405 SCALE

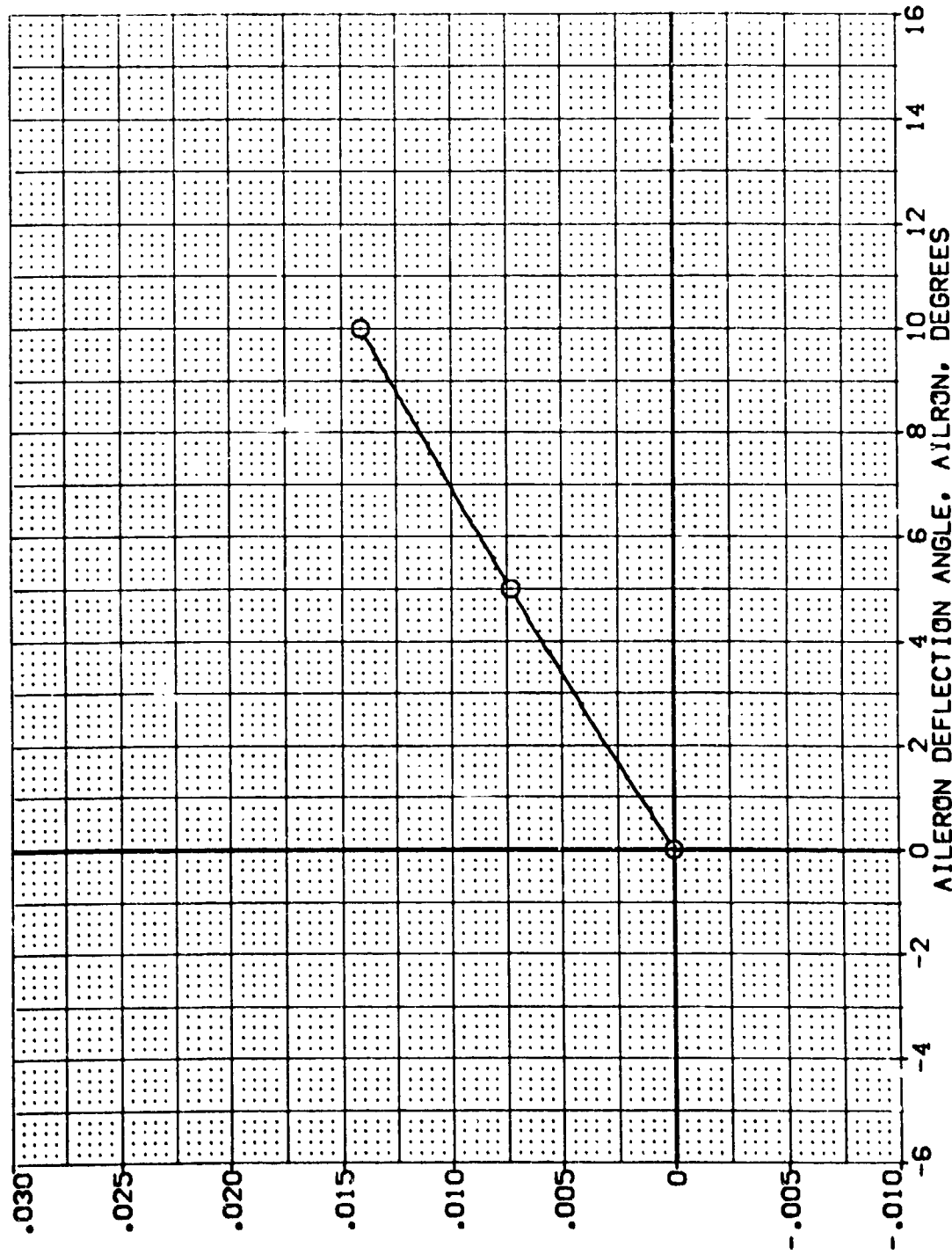


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



0

1

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	BOFLAP	SPDRK	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	25.000	.200	-12.000	25.000	DELTON RUDDER BETA	AILRON DATASET 20Z117 20Z158 .000 .000 .000	REF LREF BREF XREF YREF ZREF SCALE
							50.FT INCHES INCHES INCHES INCHES INCHES INCHES SCALE
							4.4118 19.2299 37.5359 43.5974 .0000 15.1875 .0405

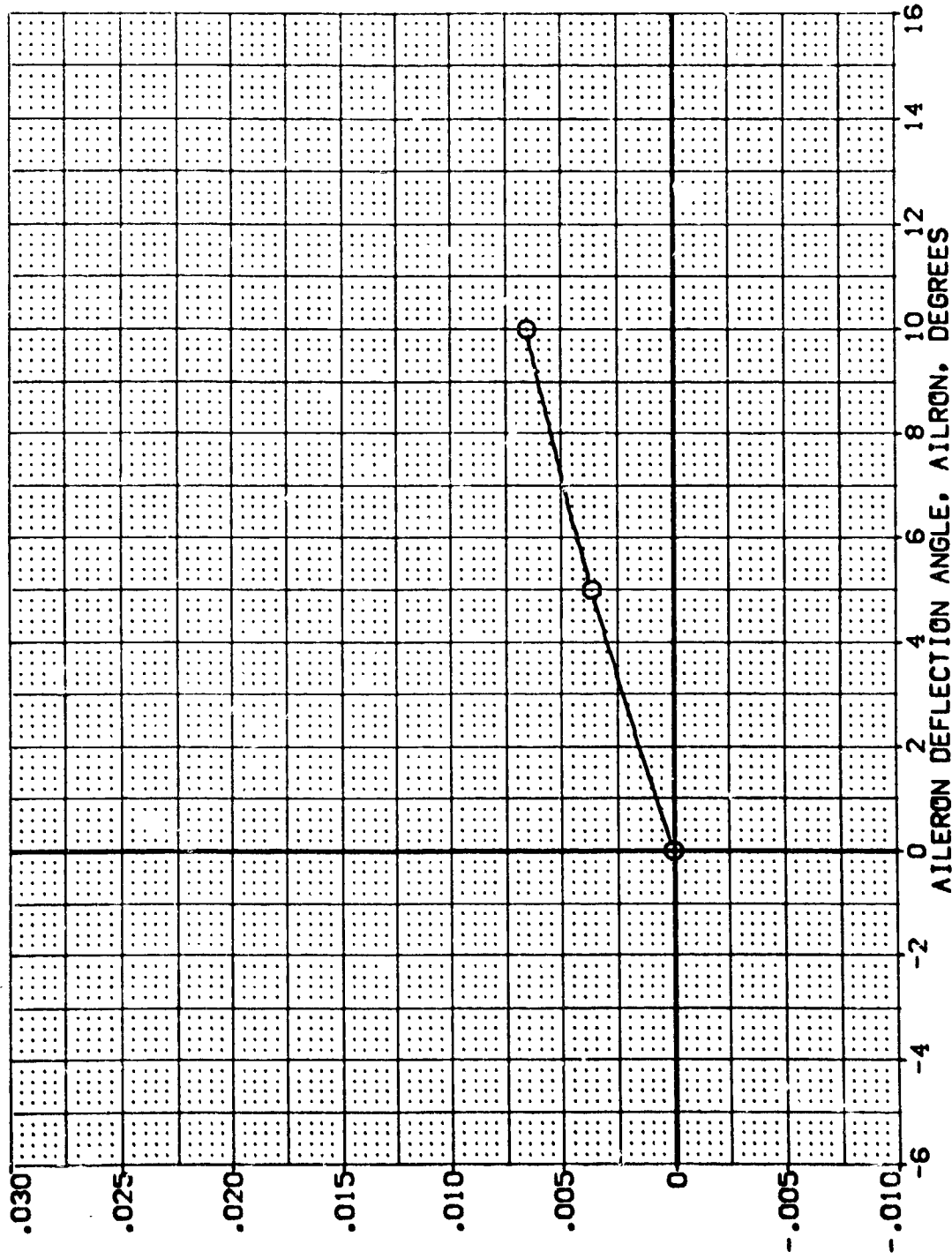
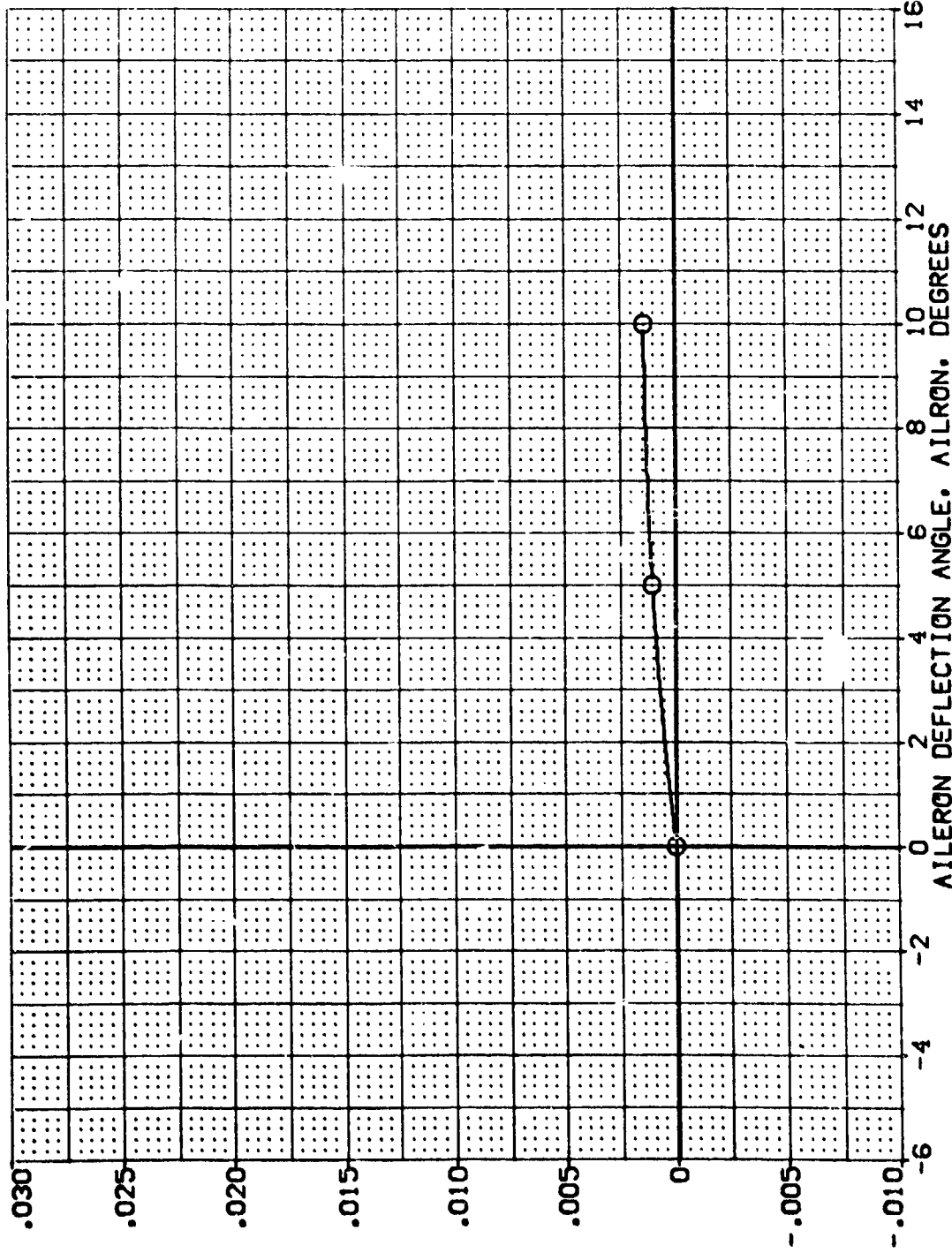


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

SWED. 0  
ALF 30.



**FIG 55** AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



10

**ALPHA**  
**5.000**

WACH  
BIOFLAP  
SPOBRK

PARAMETRIC VALUES	
DELTA	.270
RUGGER	-12.000
BETA	25.000

DATA SOURCE  
AIRLON  
10,000

```

DATASET  AILRON  5.000
          LREF
          XMRP
          YMRP
          ZMRP
          SCALE

```

REFERENCE INFORMATION

4.4119	50. FT.
19.2259	INCHES
37.9359	INCHES
43.5574	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

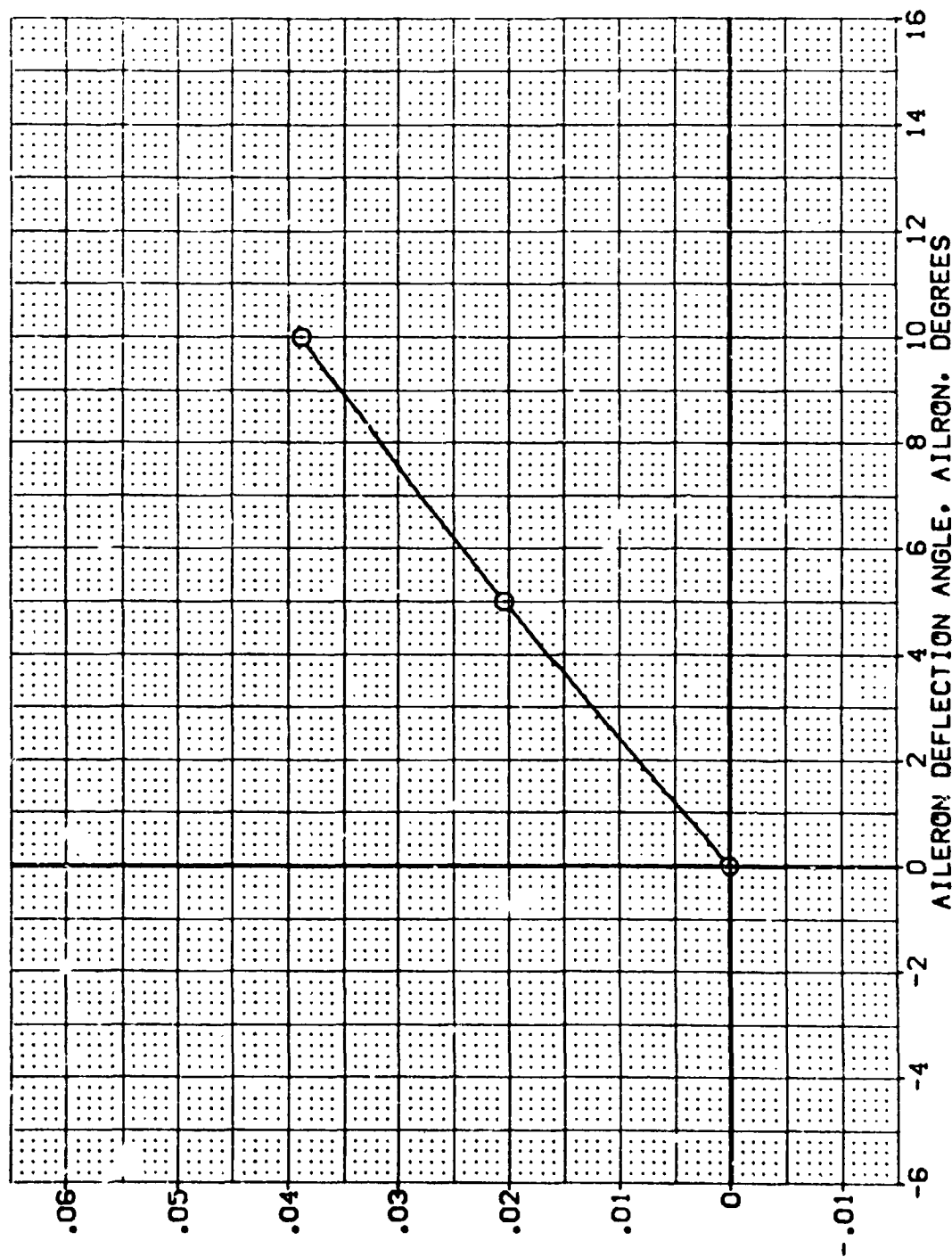


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

66

0A62B 826C9 M/F8 W116E28V8R5X9 (2DZ117)

SYMBOL	ALPHA	MACH	BOFLAP	SPDRK	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	10.000				.200 DELVON	.000 DATASET	50.FT.
					-12.000 RUDDER	.000 20Z117	INCHES
					25.000 BETA	.000 20Z158	INCHES
						10.000	INCHES
							INCHES
							INCHES
							INCHES
							SCALE

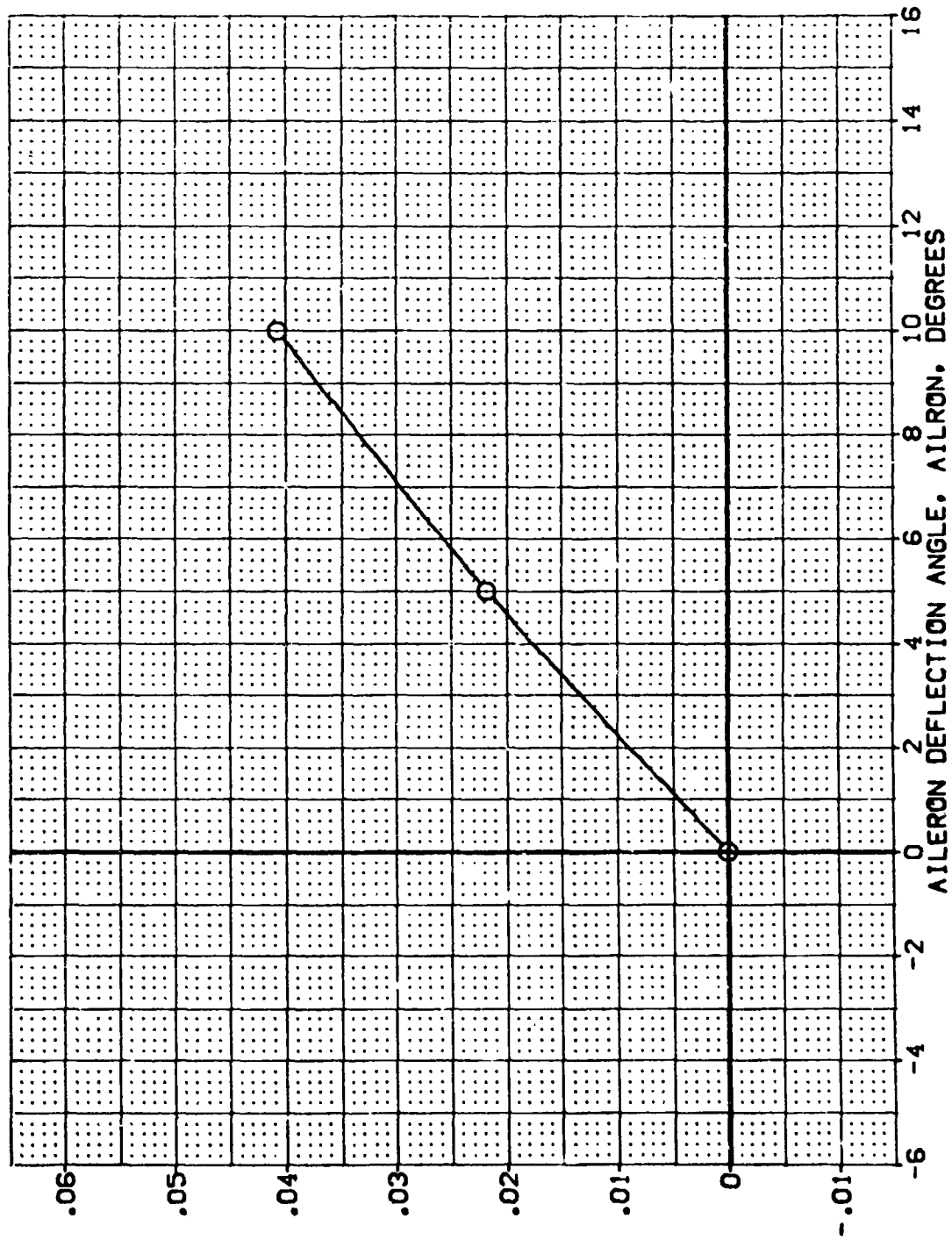


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE





0A628 826C9 M7F8 W116E28V8R5X9 (20Z117)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	20.000	MACH	.200	DELTA	.000	DELTA	.000	DELTA	4.4119	DELTA	50.000
BOFLAP	-12.000	RUDDER	25.000	BETA	.000	BETA	.000	BETA	19.2299	BETA	19.2299
SPDRK	25.000	BETA	.000	BETA	.000	BETA	.000	BETA	37.5359	BETA	37.5359
									43.5974	BETA	43.5974
									15.0000	BETA	15.0000
									15.1873	BETA	15.1873
									.0405	BETA	.0405

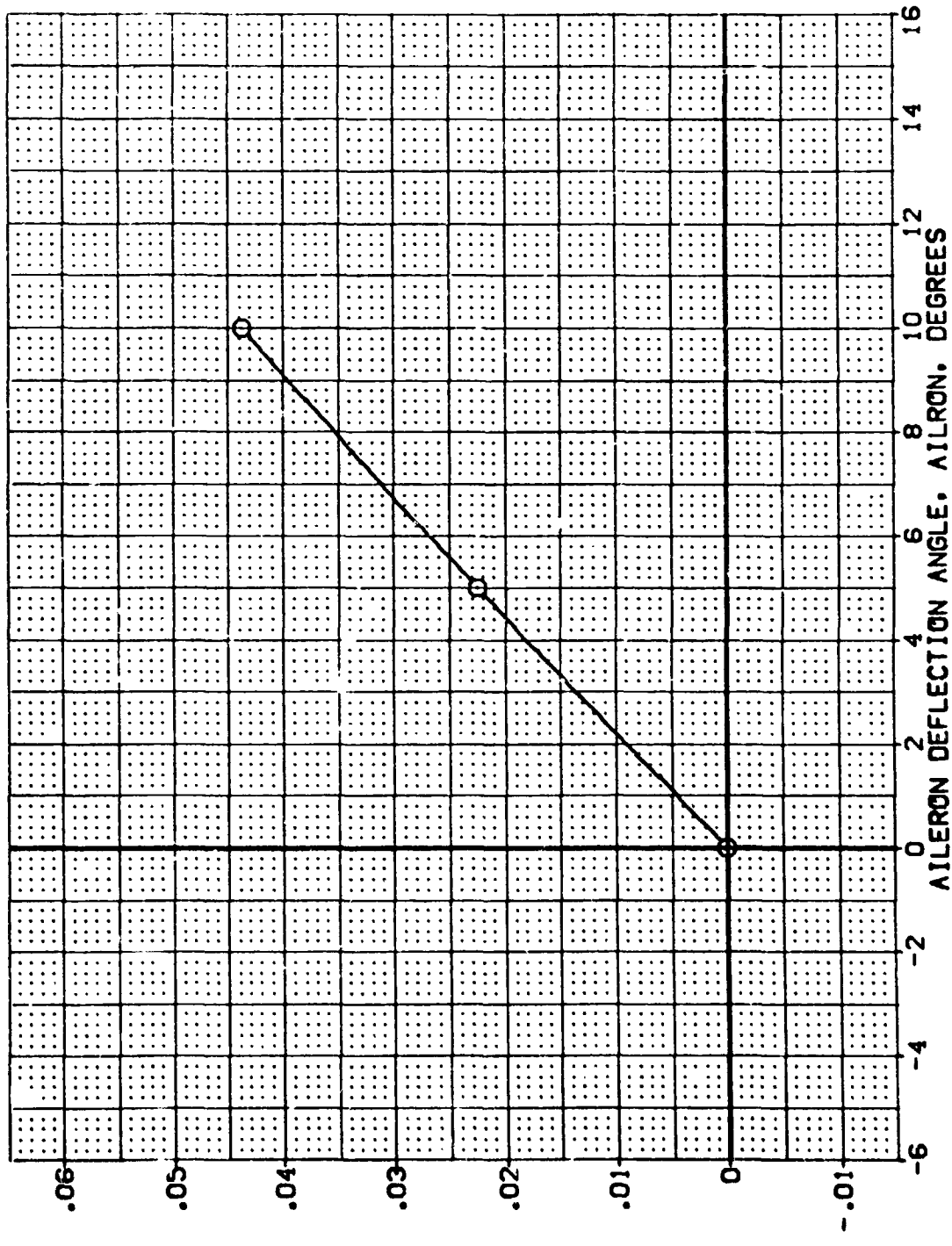


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

STAGE	ALPHA	MACH	BOFLAP	SPOBRK	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	25.000				.200 DELVON	.000 DATASET	4.4119 SQ.FT.
					-12.000 RUDDER	.000 20Z117	19.2299 INCHES
					25.000 BETA	.000 20Z158	37.9359 INCHES
						10.000	43.5974 INCHES
							.0000 INCHES
							15.1875 INCHES
							.0405 SCALE

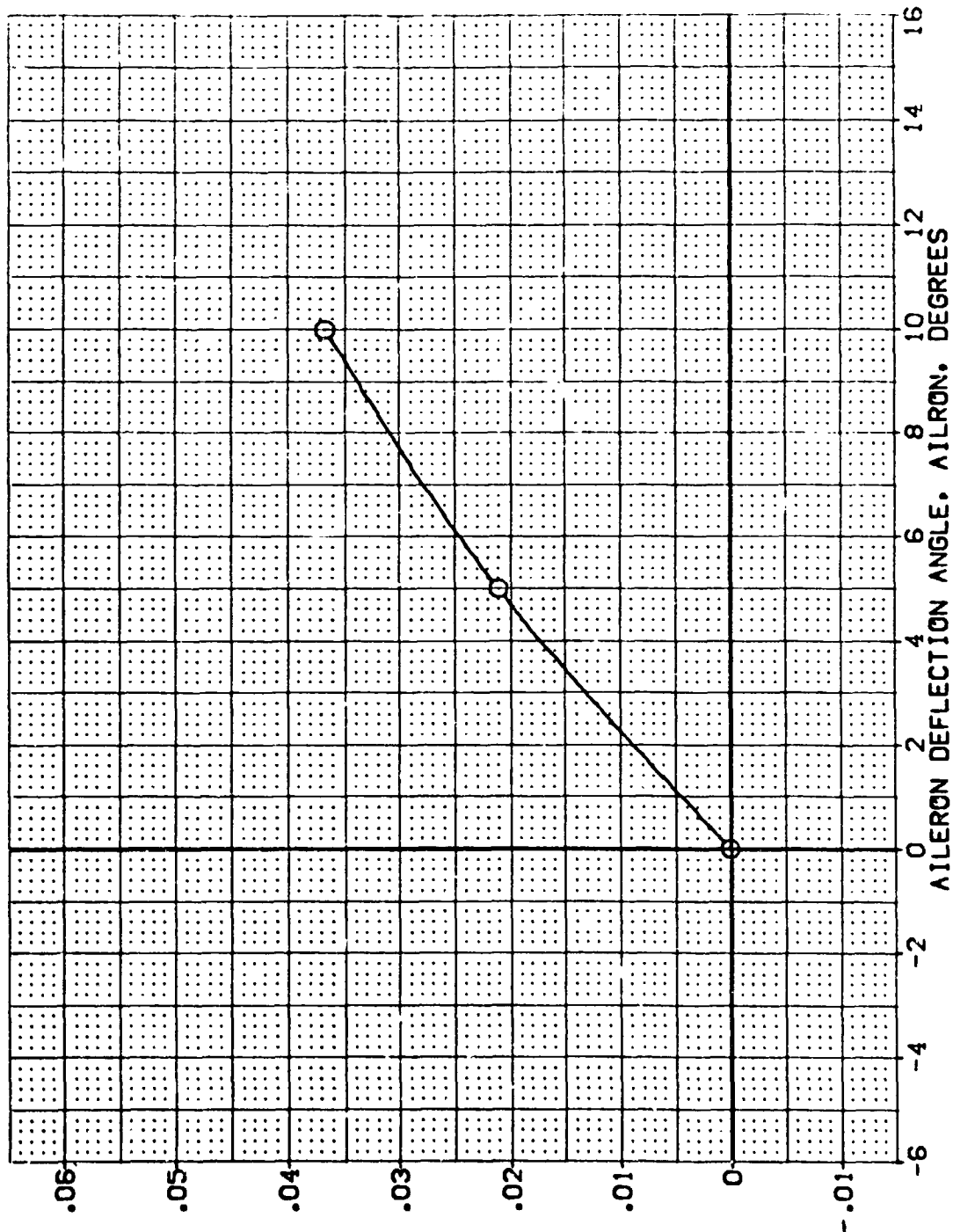


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



W116E28V8R5X9

**0**

**ALPHA**  
**30.000**

MACH	.200	DEL VGN
BDFLAP	-12.000	RUDDER
SPOBRK	25.000	BETA

DATA SOURCE  
MILRON  
10.000  
10.000

DATASET	AIRLON	SP
202156	5.000	LF
		BR

4.4119	50 FT.
19.2299	INCHES
37.9359	INCHES
43.5574	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

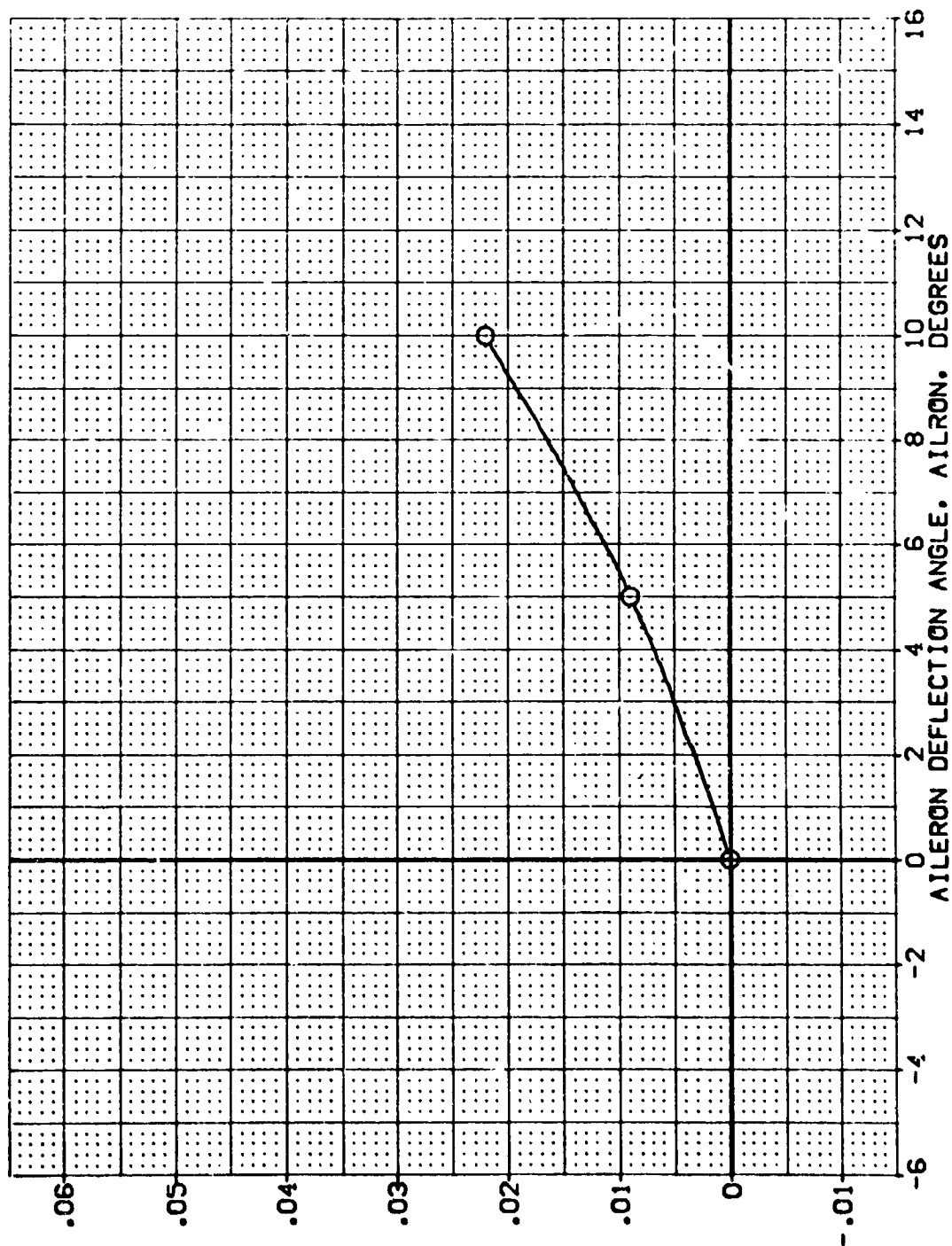


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(202117)

**0**

ALPHA .000

**HOW TO FIND SPIDER**

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PARAM  
-12.00  
25.00

**ETRIC**

VALU  
DEL VO  
RUDE  
BETA

**END**

888.

DATE	TIME	LOCATION	DESCRIPTION	REMARKS
01/01/2024	08:00	0101	0101	0101
01/01/2024	08:00	0101	0101	0101
01/01/2024	08:00	0101	0101	0101

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1158

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ATASE.  
DZ156

**ATTENTION**

**LAGN**  
**\$5,000**

**06-17**

## REFERENCES

4.41  
19.22  
37.93  
43.59

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1969  
1974

222-225

2000-01-01

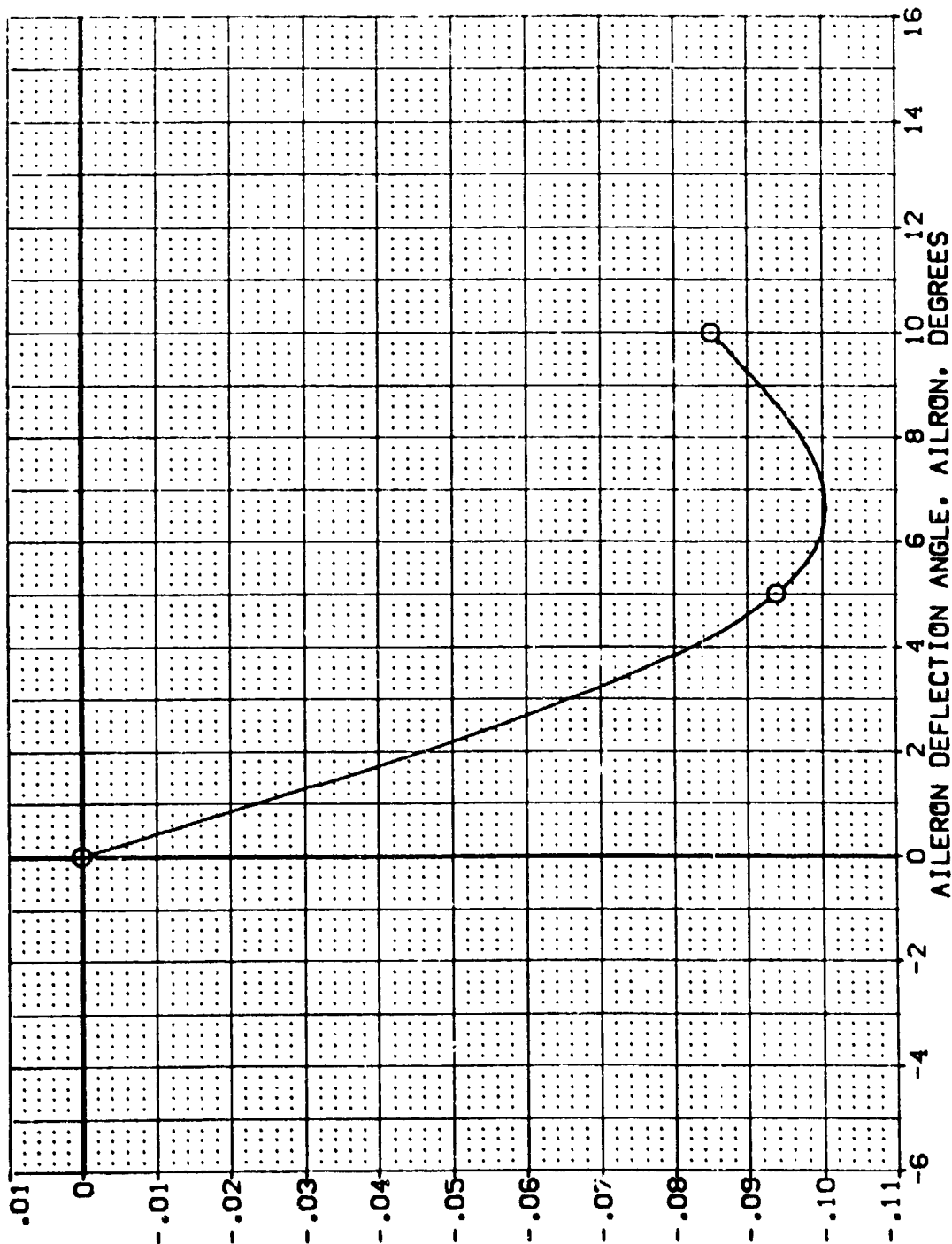


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

2

**10**



(20Z117)

0A628 826C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	10.000	AILRON	AILRON	SREF	4.4119
BOFLAP	-12.000	AILRON	20Z156	LREF	19.2299
SPDRK	25.000	AILRON	20Z156	BREF	37.9359
		AILRON	20Z156	XREF	43.5974
		AILRON	20Z156	YREF	15.1875
		AILRON	20Z156	ZREF	15.1875
		AILRON	20Z156	SCALE	SCALE

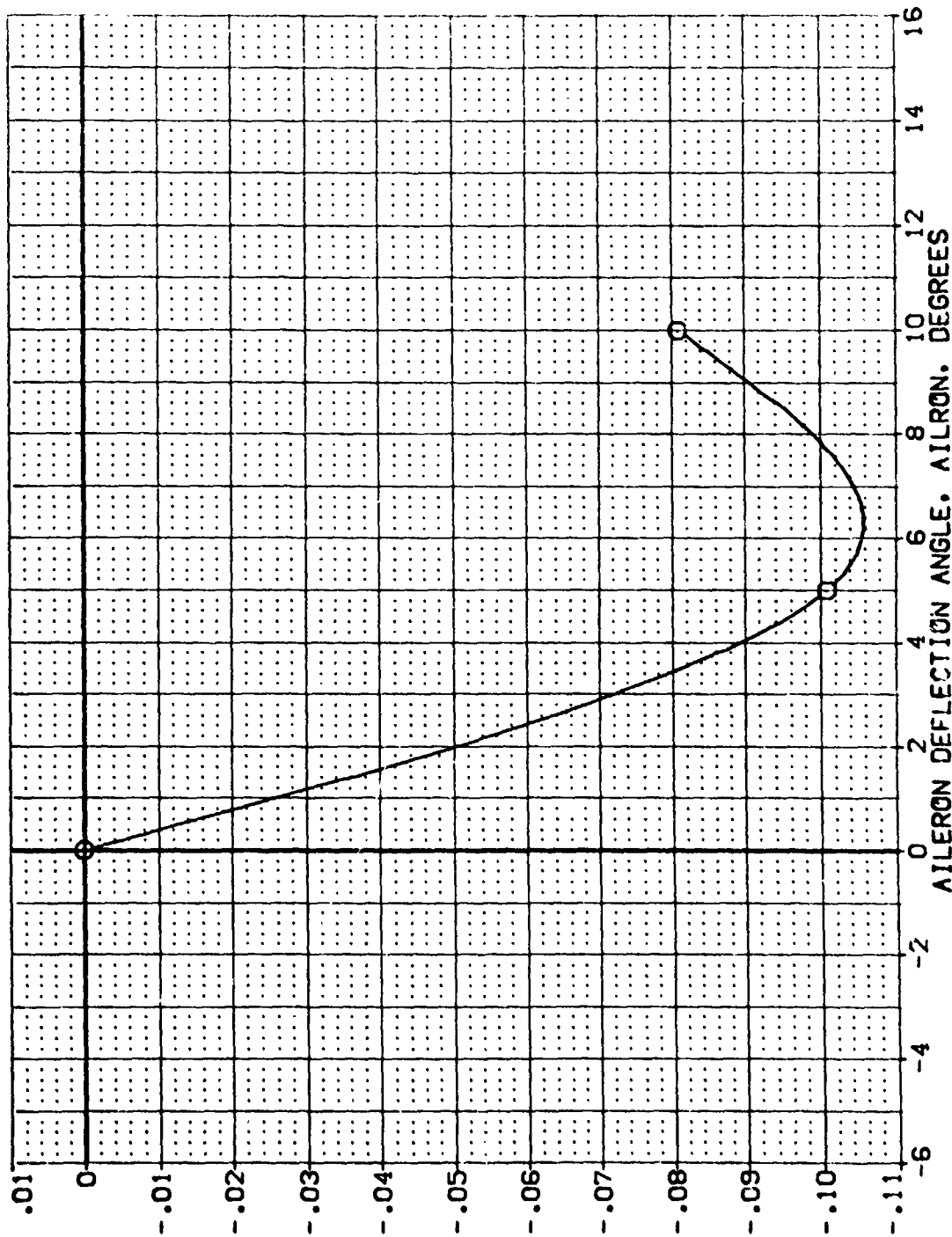


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL  
O

ALPHA  
15.000

MACI  
BOFLAP

MACI  
BOFLAP

PARAMETRIC VALUES  
.200 DELVON  
-12.000 RUDDER  
25.000 BETA

DATA SOURCE  
AILRON  
20Z156

DATA SOURCE  
AILRON  
20Z156

DATA SOURCE  
AILRON  
20Z156

DATA SOURCE  
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20Z156

DATA SOURCE  
AILRON  
20Z156

DATA SOURCE  
AILRON  
20Z156

DATA SOURCE  
AILRON  
20Z156

DATA SOURCE  
AILRON  
20Z156

REFERENCE INFORMATION  
4.4118 SQ.FT.  
19.2259 INCHES  
37.9359 INCHES  
43.5974 INCHES  
15.1875 INCHES  
SCALE

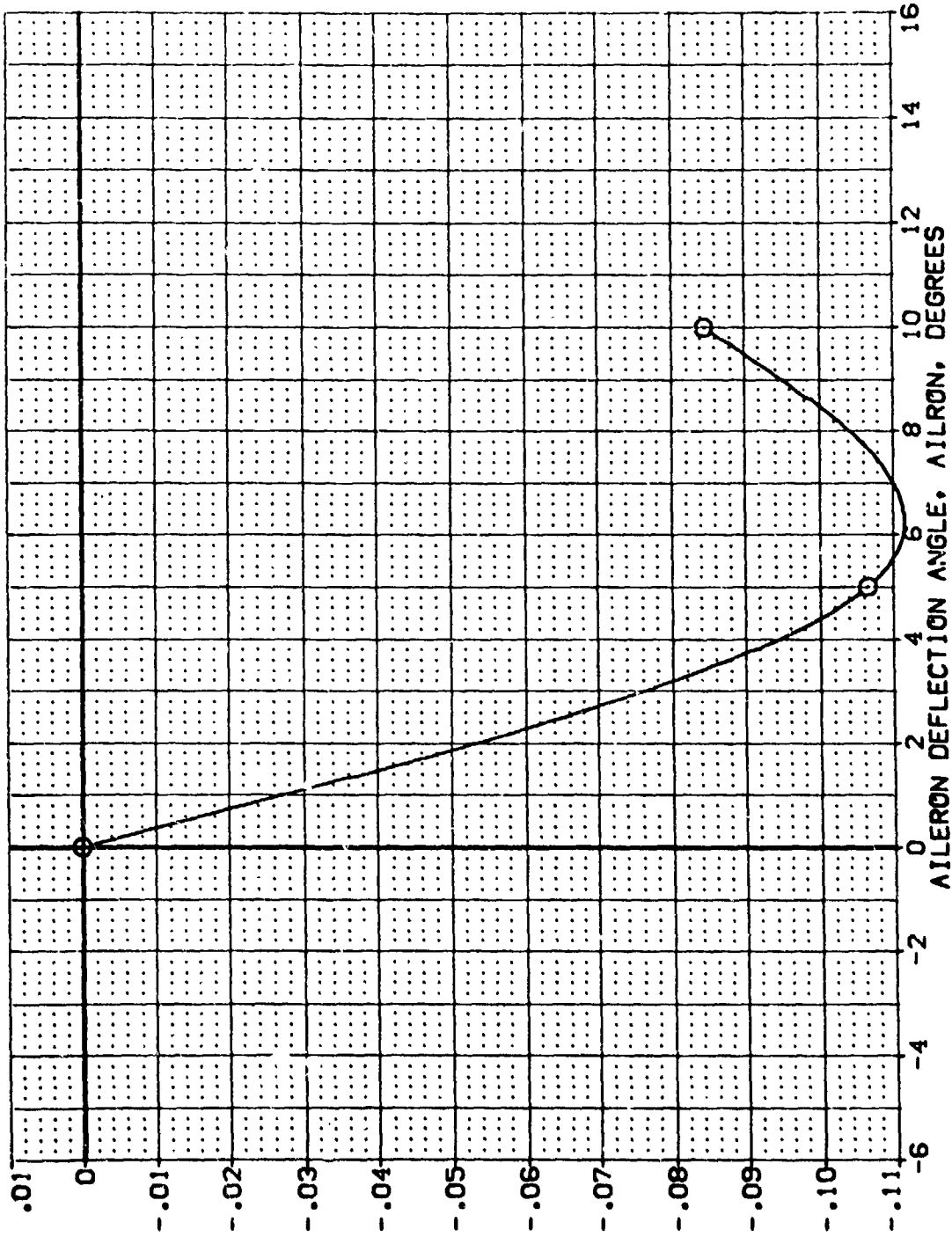


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

**Q**

REFERENCE INFORMATION	50.FT.
1.4119	INCHES
19.2299	INCHES
37.9359	INCHES
43.5974	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

R  
SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE

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BETA

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Page 12 of 25

CH FLAP CBPX

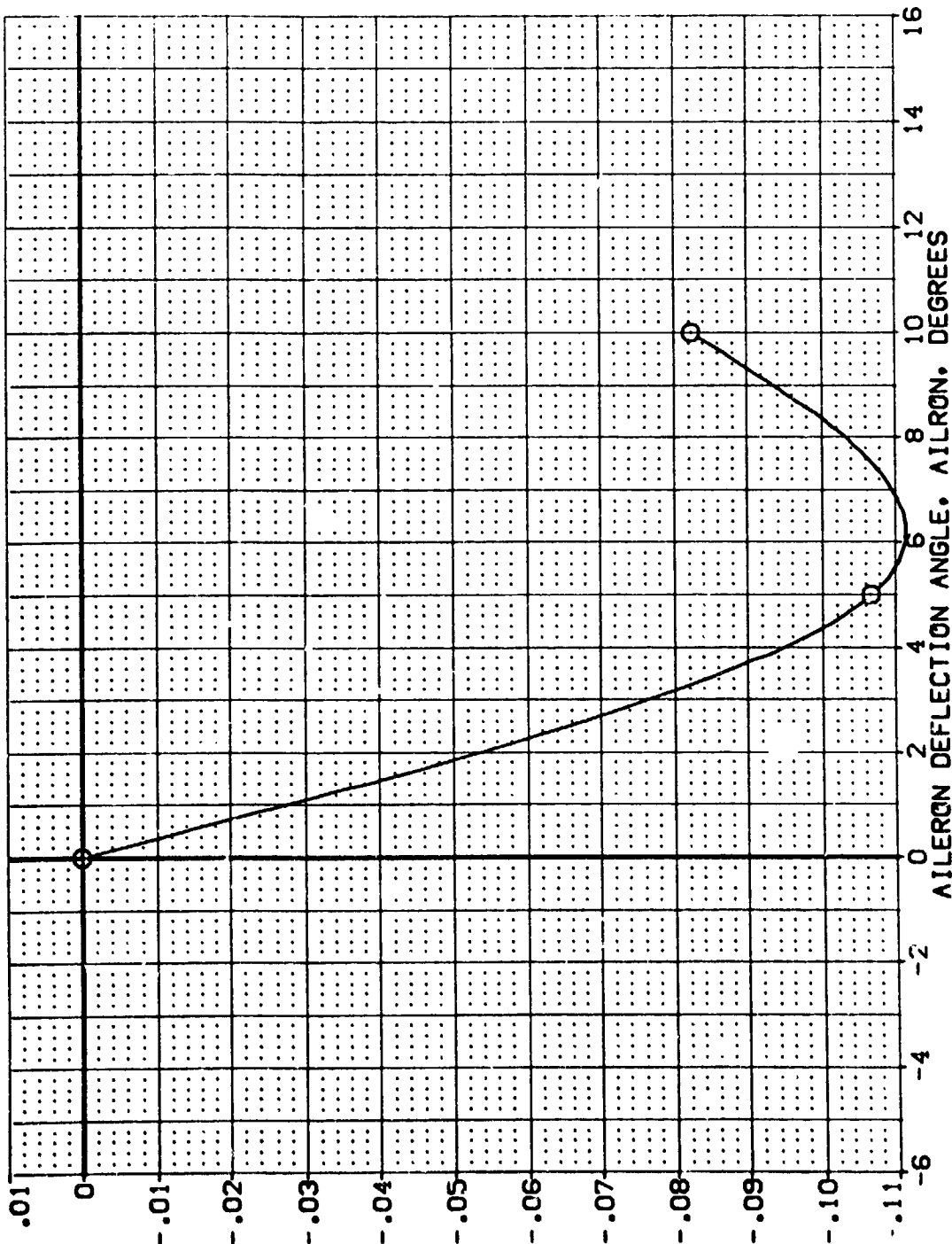
555

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0.000**

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**○**

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**FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE**

**M7F8**

**GA628 B**

<b>SYMBOL</b>	<b>ALPHA</b>	<b>PARAMETRIC VALUES</b>			<b>DATA SOURCE</b>		<b>REFERENCE INFORMATION</b>			
O	25.000	MACH	.200	DELVON	.000	DATASET	AIRLON	SREF	4.4119	SO.FT.
		BFLAP	-12.000	RUDDER	.000	20Z117		LRFF	19.2268	INCHES
		SPOBRK	25.000	BETA	.000	20Z156	10.000	BRFF	37.9259	INCHES
								XMRP	43.5574	INCHES
								YMRP	.0000	INCHES
								ZMRP	15.1875	INCHES
								SCALE	.0405	SCALE

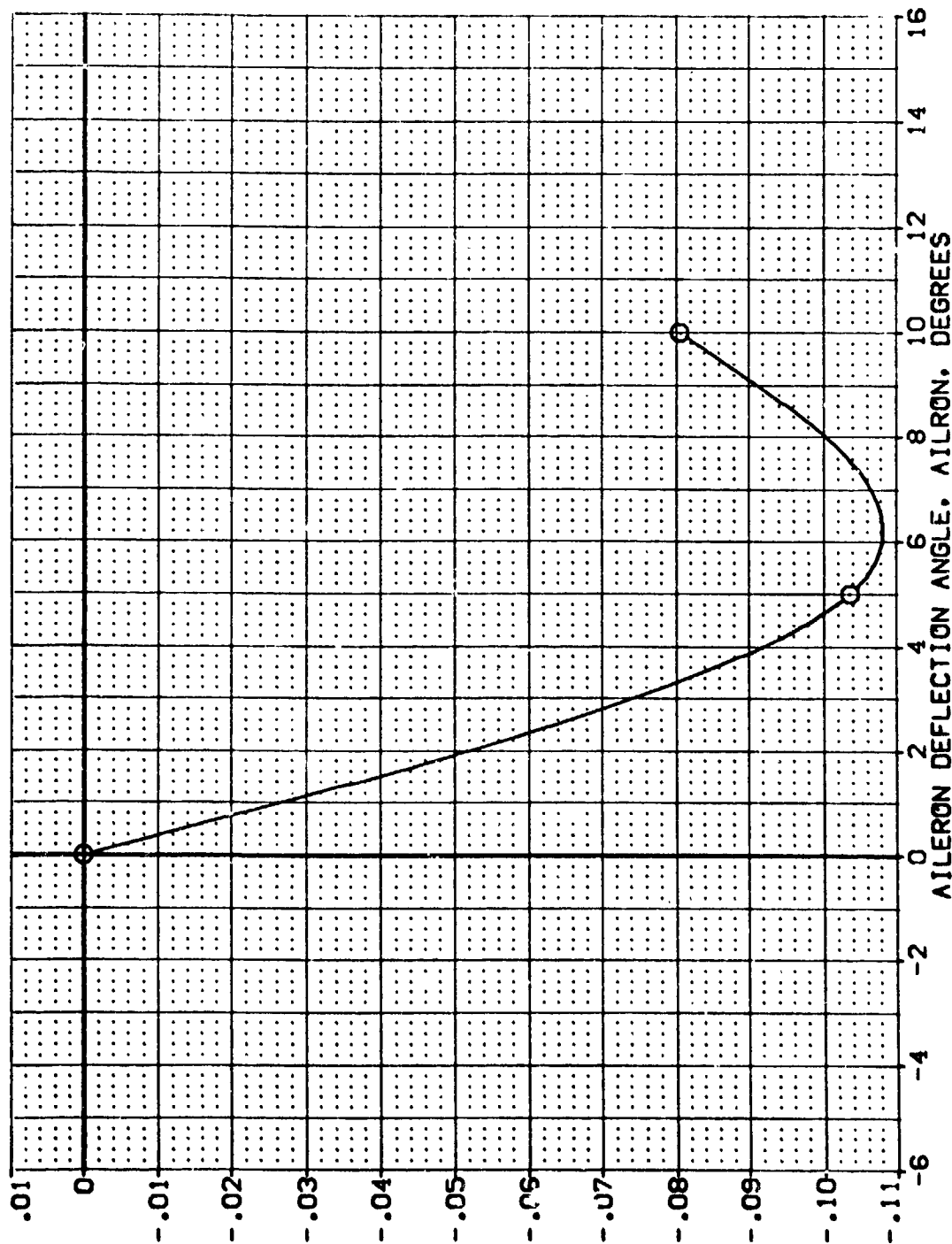


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(202117)

0A628 826C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	30.000	MACH	.200	DELTA	.000	DATA SET	AILRON	SREF	4.1119	SO.FT.	
BOFLAP	-12.000	RUDER	.000	202117	.000	202156	5.000	LREF	19.2299	INCHES	
SPDRK	25.000	BETA	.000	202158	10.000			DREF	37.9359	INCHES	
								XPRP	43.5374	INCHES	
								YPRP	15.0000	INCHES	
								ZPRP	15.1875	INCHES	
								SCALE	.0405	SCALE	

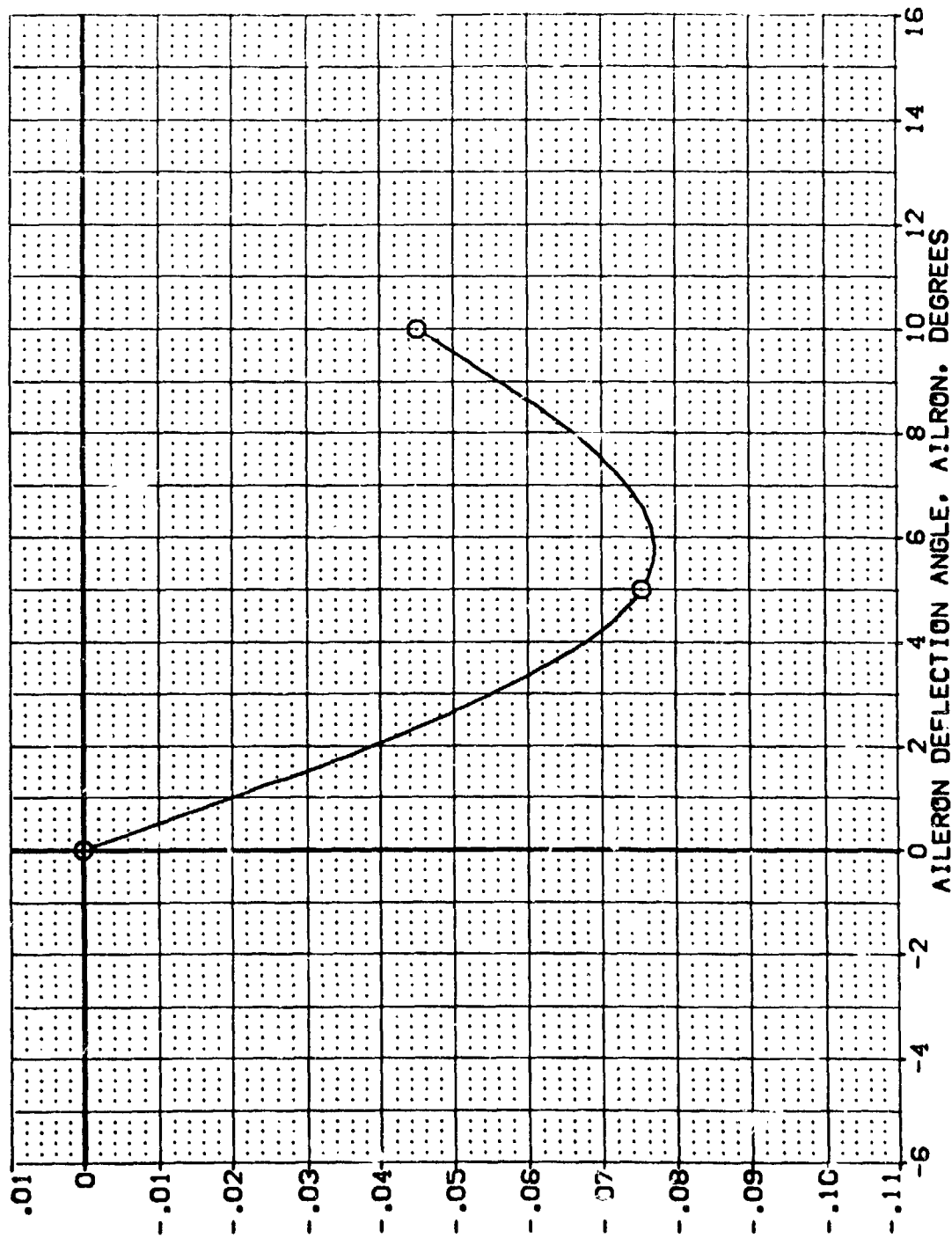


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE





0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	.000	.200	DELTON	AILRON	SREF SQ.FT.
		-12.000	RUDDER	.000	UREF INCHES
		25.000	BETA	20Z117	BREF INCHES
				20Z156	XREF INCHES
				10.000	YREF INCHES
					ZREF INCHES
					SCALE
					15.1875
					.0405

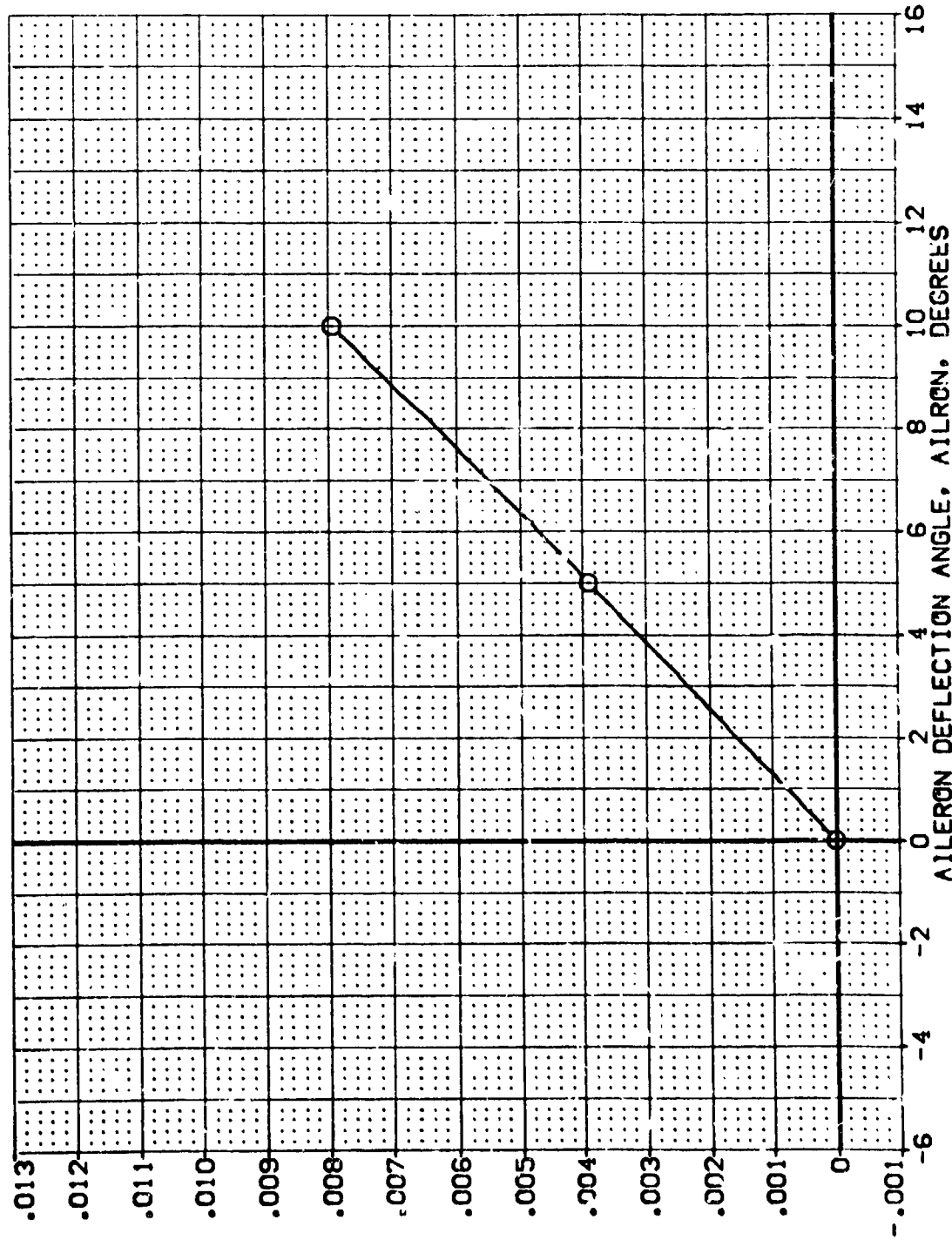


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(202117)

5.000  
A. 5.000

PARAMETRIC VALLI  
 .200 DELVER  
 -12.000 RUDDER  
 25.000 BETA

DATA SOURCE  
AIRLIGN  
000,000  
10,000

**AIRPORT**  
**5.000**

REFERENCE INFORMATION

4.4119	50.FT.
19.2299	INCHES
37.9359	INCHES
43.5974	INCHES
0.000	INCHES
15.1875	INCHES
.0405	SCALE

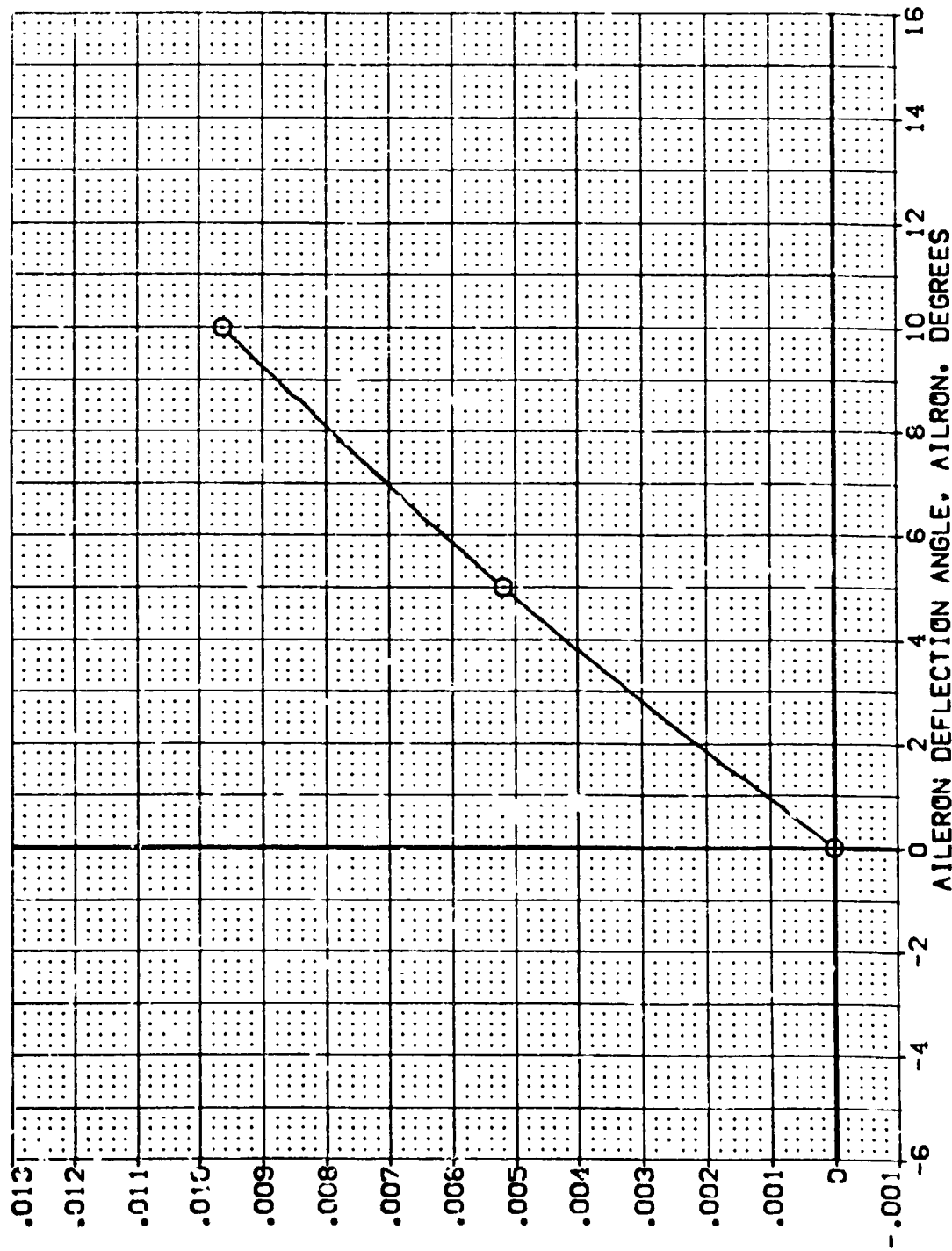


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

ST-20L	ALPHA	10.000	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
0	MACH	.200	DELTA	.000	DATASET	AILRON	20Z156	AILRON	5.000	SKREF	4.4119	SO.FT.		
	BDFLAP	-12.000	RUDER	.000	20Z117	.000	20Z156	LREF	19.2299	BREF	19.2299	INCHES		
	SPOBRK	25.000	BETA	.000	20Z158	10.000		XREF	37.9559	YREF	43.5974	INCHES		
								ZREF	.0000	ZPRP	15.1975	INCHES		
								SCALE	.0405	SCALE	.0405	INCHES		

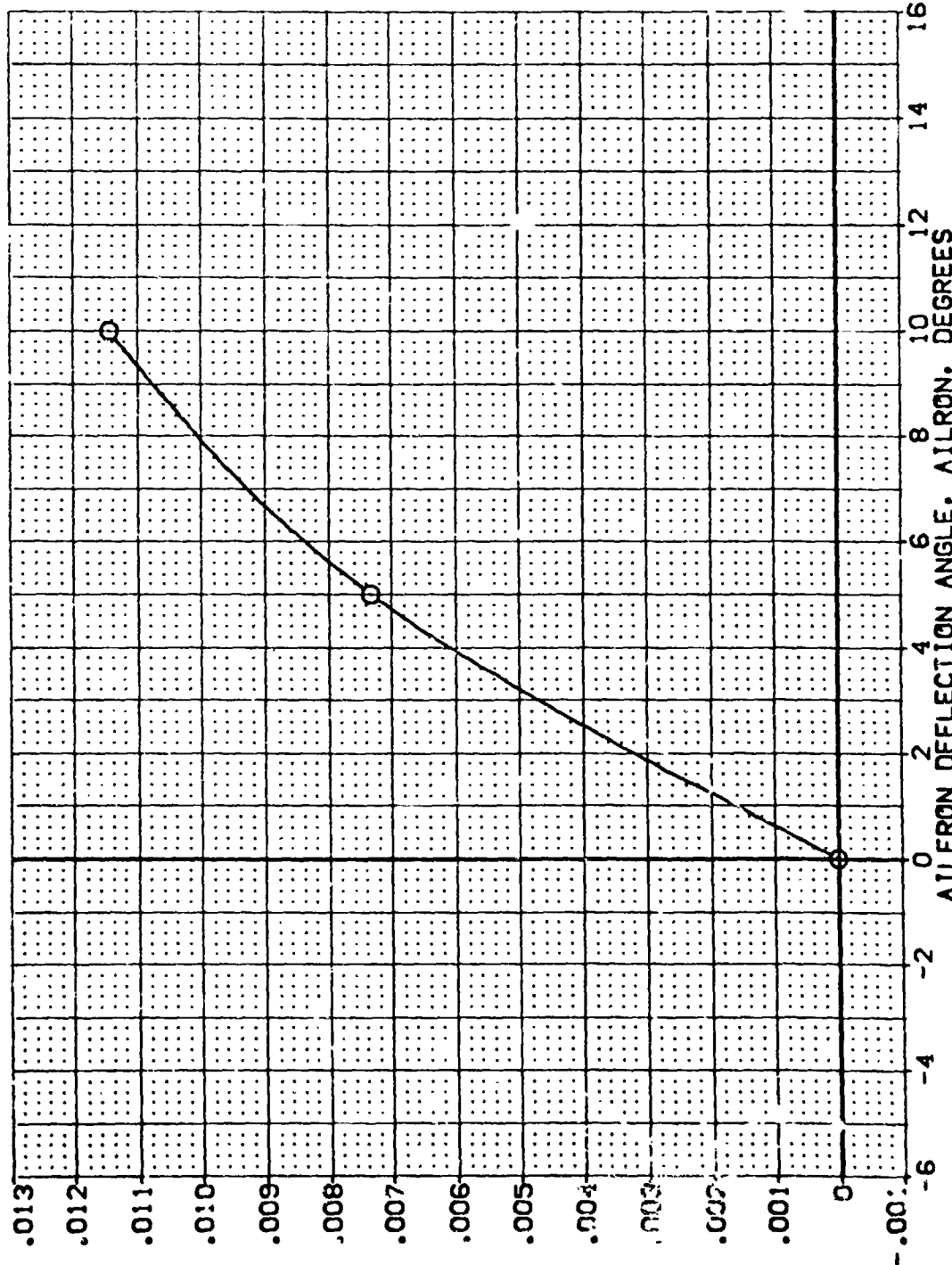


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
O	15.000	80FLAP	.200	DELTA	.000	DATA SET	AILRON	SREF	4.4119	50. FT.	
		SPOBRK	-12.000	RUDDER	.000	20Z117	5.000	LREF	19.2259	INCHES	
			25.000	BETA	.070	20Z158		BREF	37.9359	INCHES	
								YMRP	43.5574	INCHES	
								ZMRP	.0000	INCHES	
								SCALE	15.1875	INCHES	
									.0405	SCALE	

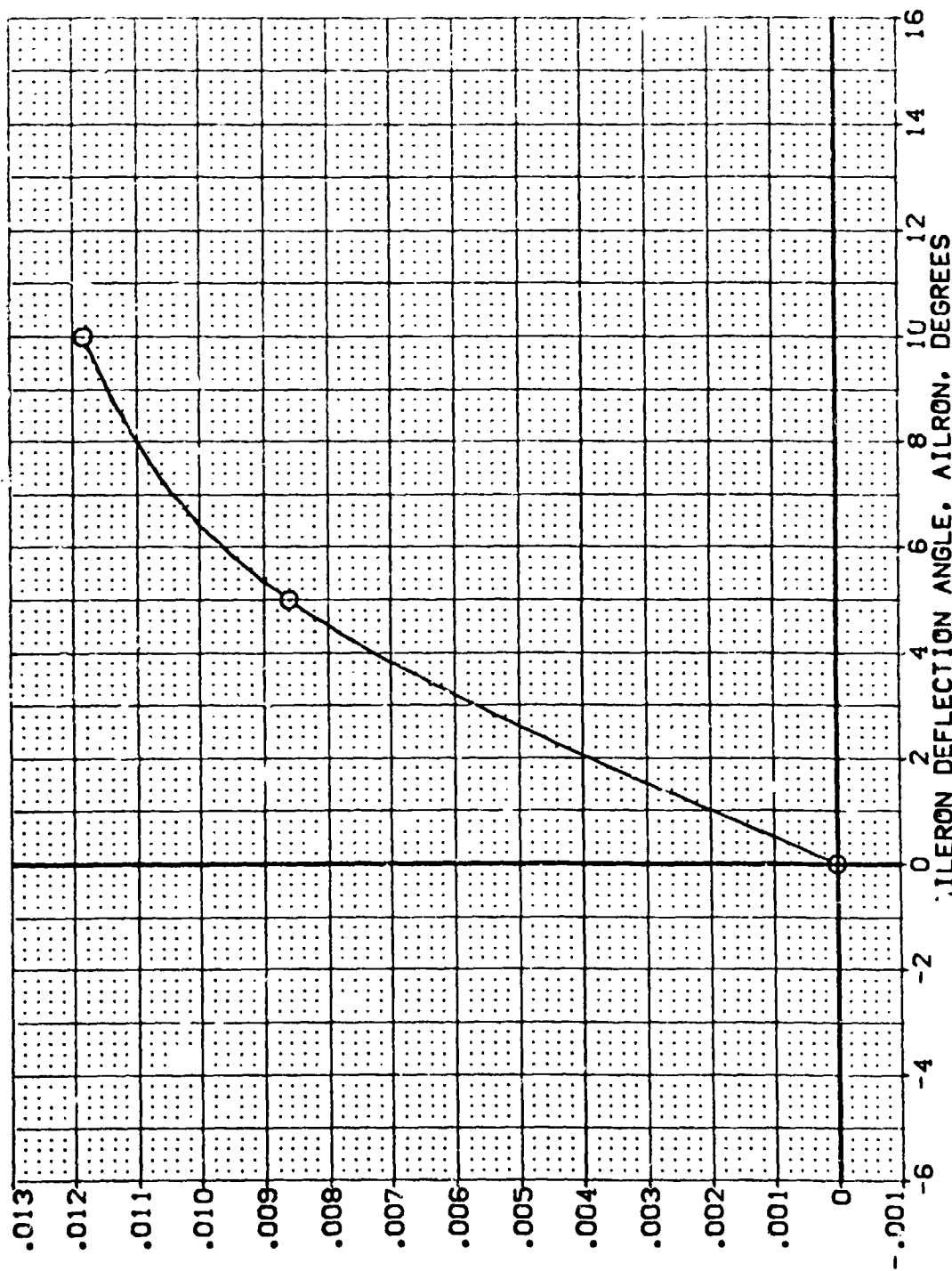


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

6

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z117)  
 SYMBOL 0  
 ALPHA 20.000  
 MACH 0.200  
 DELTA 0.000  
 RUDDER 0.000  
 BETA 0.000  
 SPOBRK 25.000  
 DATA SOURCE AILRON 10.000  
 DATASET 20Z156  
 AILRON 5.000  
 REF 4.4119  
 LREF 19.2239  
 XREF 37.9359  
 YREF 43.5974  
 ZREF 0.0700  
 SCALE 15.1875  
 REFERENCE INFORMATION  
 SQ.FT 4.4119  
 INCHES 19.2239  
 INCHES 37.9359  
 INCHES 43.5974  
 INCHES 0.0700  
 INCHES 15.1875  
 INCHES .0405

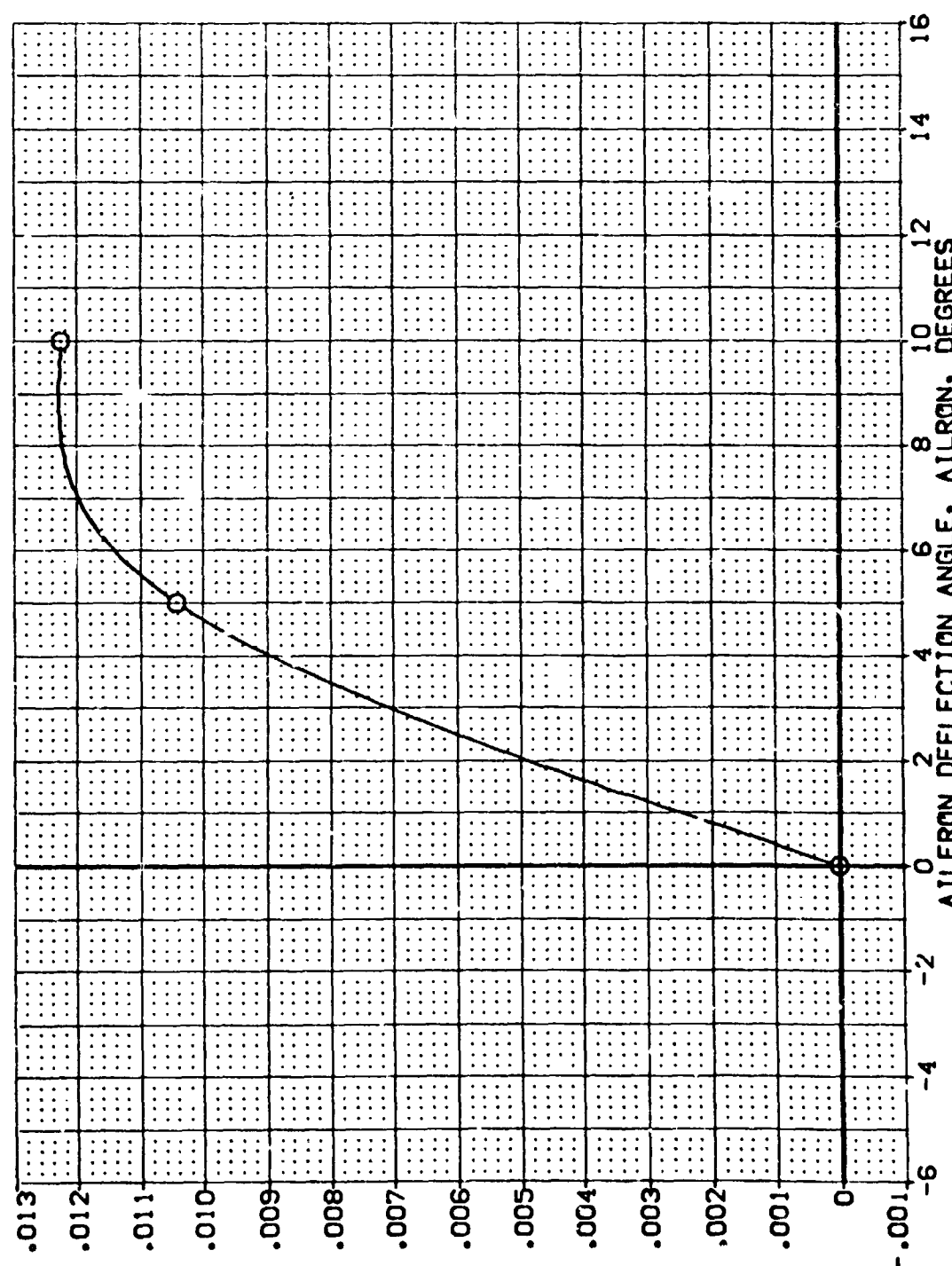


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

INCREMENTAL AXIAL FORCE COEFFICIENT, DCA

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z117)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	25.000	BDFLAP	.200 DELVON	.000 DATASET	SREF
		SPDRK	-12.000 RUDDER	.000 20Z117	LREF
			25.000 BETA	.000 20Z156	BREF
				10.000	XMPP
					YMPP
					ZMPP
					SCALE
					4.4119
					19.2299
					37.9359
					43.5974
					.0000
					15.1875
					.0405
					SO.FT.
					INCHES
					INCHES
					INCHES
					INCHES
					INCHES
					SCALE

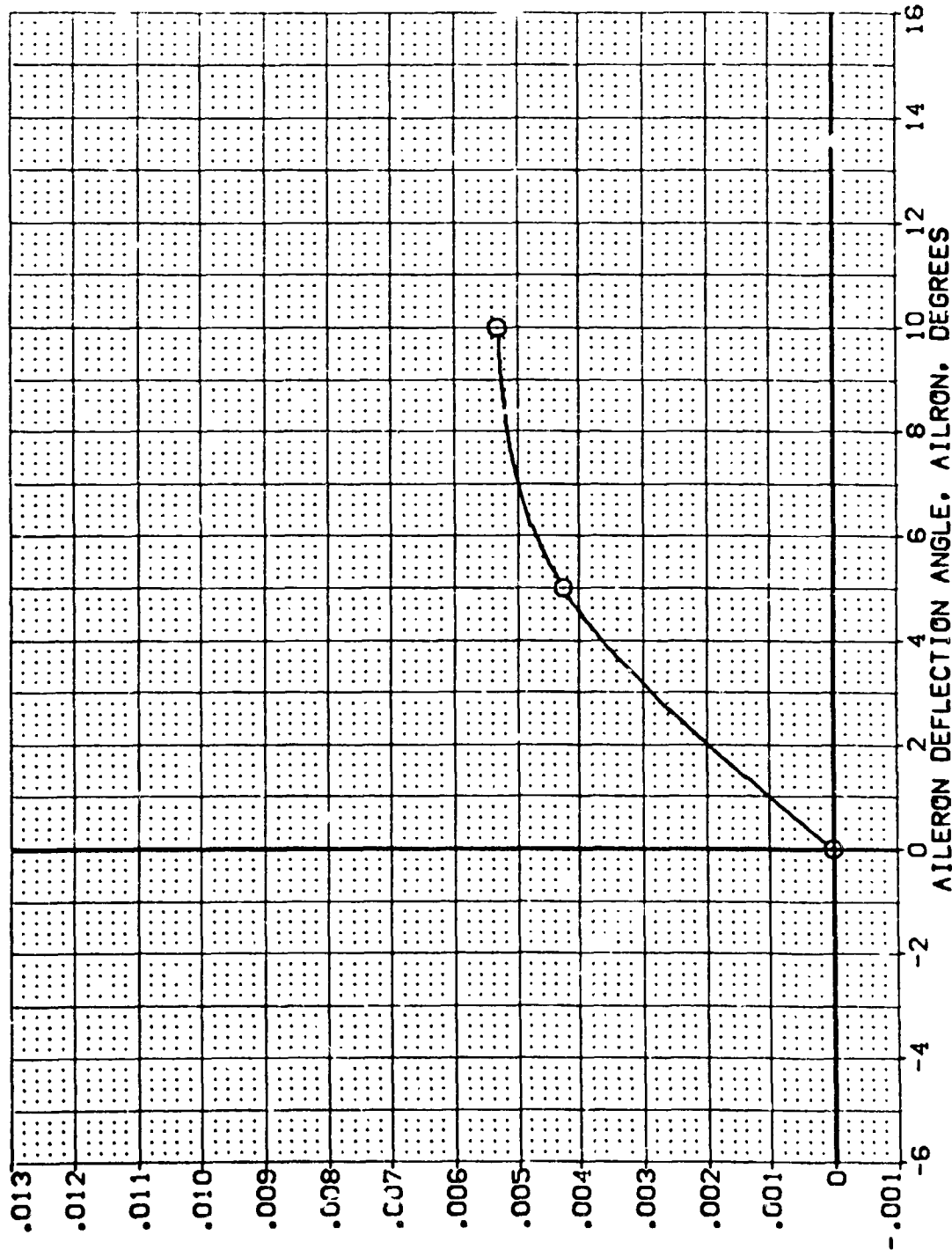


FIG 55 AILERON EFFECTIVENESS, BASELINE ELEVON GAP, 25 DEG FLARE

(20Z117)

0A628 B26C9 M7F8 W116E28V8R5X9

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
ALPHA	30.000	MACH	.200	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.000	DELTON	.

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		SPDBRK		BDFLAP		RUDDER		REFERENCE INFORMATION	
(R02170)	0A628	B26C8	M7F8	V116E28V8F5X3	.000	25.000	-12.000	-16.220	SREF	4.4119	50.000	SO.FT	
(R02164)	0A628	B26C8	M7F8	V116E28V8F5X3	.000	25.000	-12.000	-7.960	LRFF	19.2288	100.000	INC-ES	
(R02223)	0A628	B26C8	M7F8	V116E28V8F5X3	.000	25.000	-12.000	.000	BRFF	37.9358	100.000	INC-ES	
									XMRP	43.9374	100.000	INC-ES	
									ZMRP	15.1675	100.000	INC-ES	
									SCALE	.0405		SCALE	

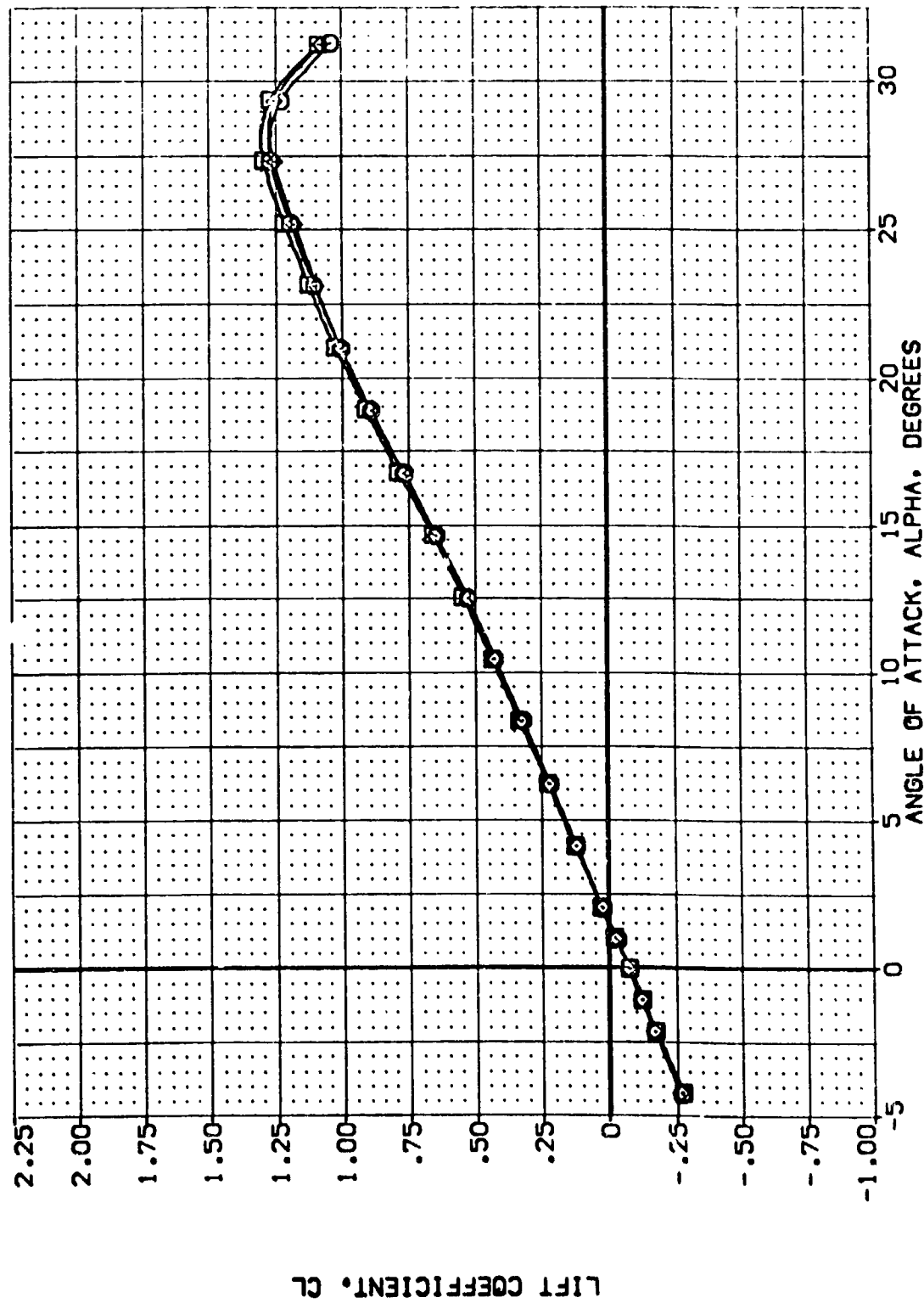


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

MACH = .26



(1)

(2)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOILER	BOFLAP	RUDDER	REFERENCE INFORMATION
(R02170)	0A528 B28C3 M7F8 V11628V85X9	.000	25.000	-12.000	-15.220	SREF 4.4119 SQ.FT.
(R02164)	0A528 B28C3 M7F8 V11628V85X9	.000	25.000	-12.000	-7.560	UREF 19.2299 INCHES
(R02323)	0A528 B28C3 M7F8 V11628V85X9	.000	25.000	-12.000	.000	BREF 37.5359 INCHES
						XMRP 43.5574 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405 SCALE

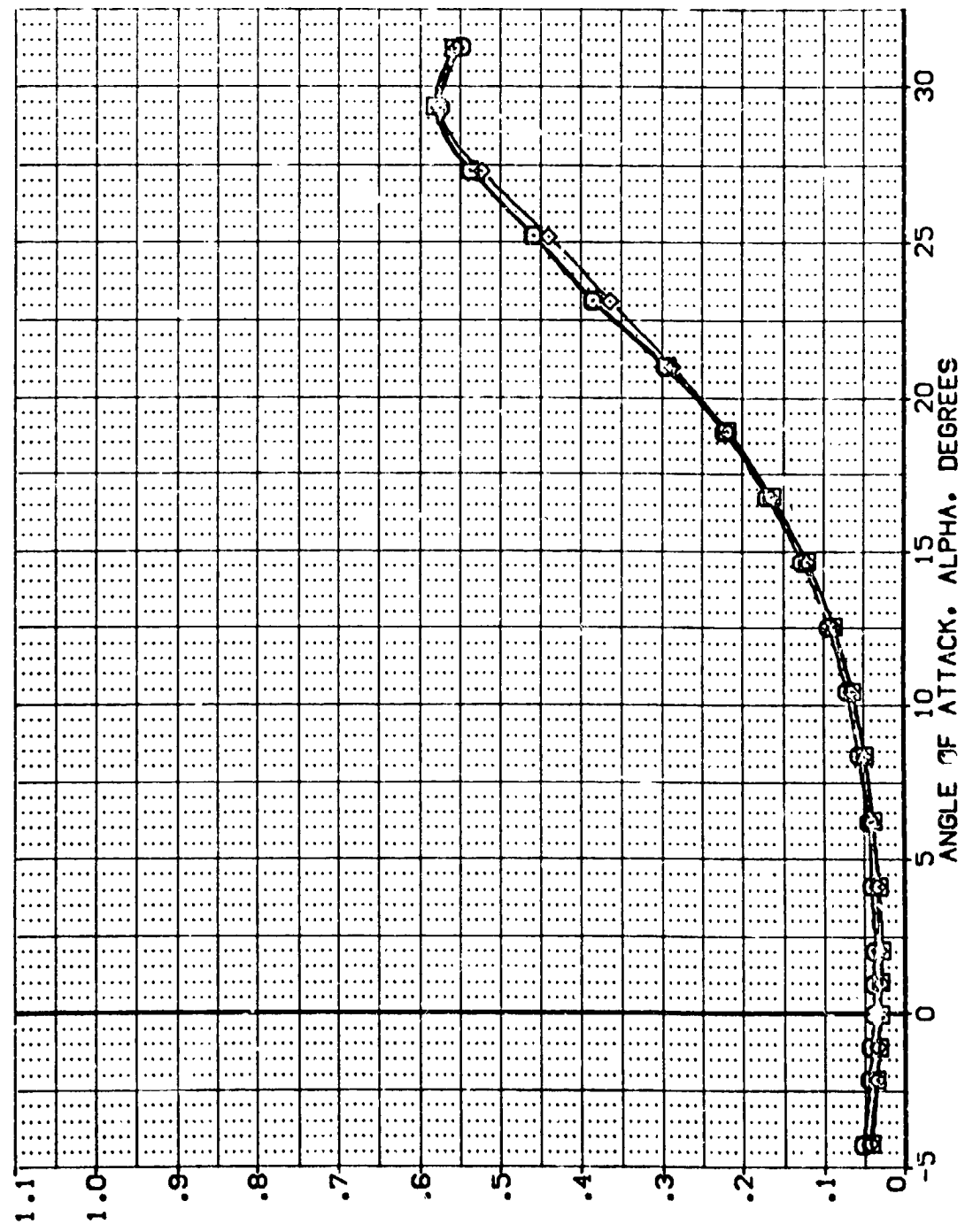


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
{R02170}	0A628 B06CS M77-8 V11B228V85X9	.000	25.000	-12.000	-15.220	SREF 4.4119 SQ.FT.
{R02164}	0A628 B06CS M77-8 V11B228V85X9	.000	25.000	-12.000	-7.960	LREF 19.2299 INCHES
{R02223}	0A628 B06CS M77-8 V11B228V85X9	.000	25.000	-12.000	.000	BREF 37.5359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

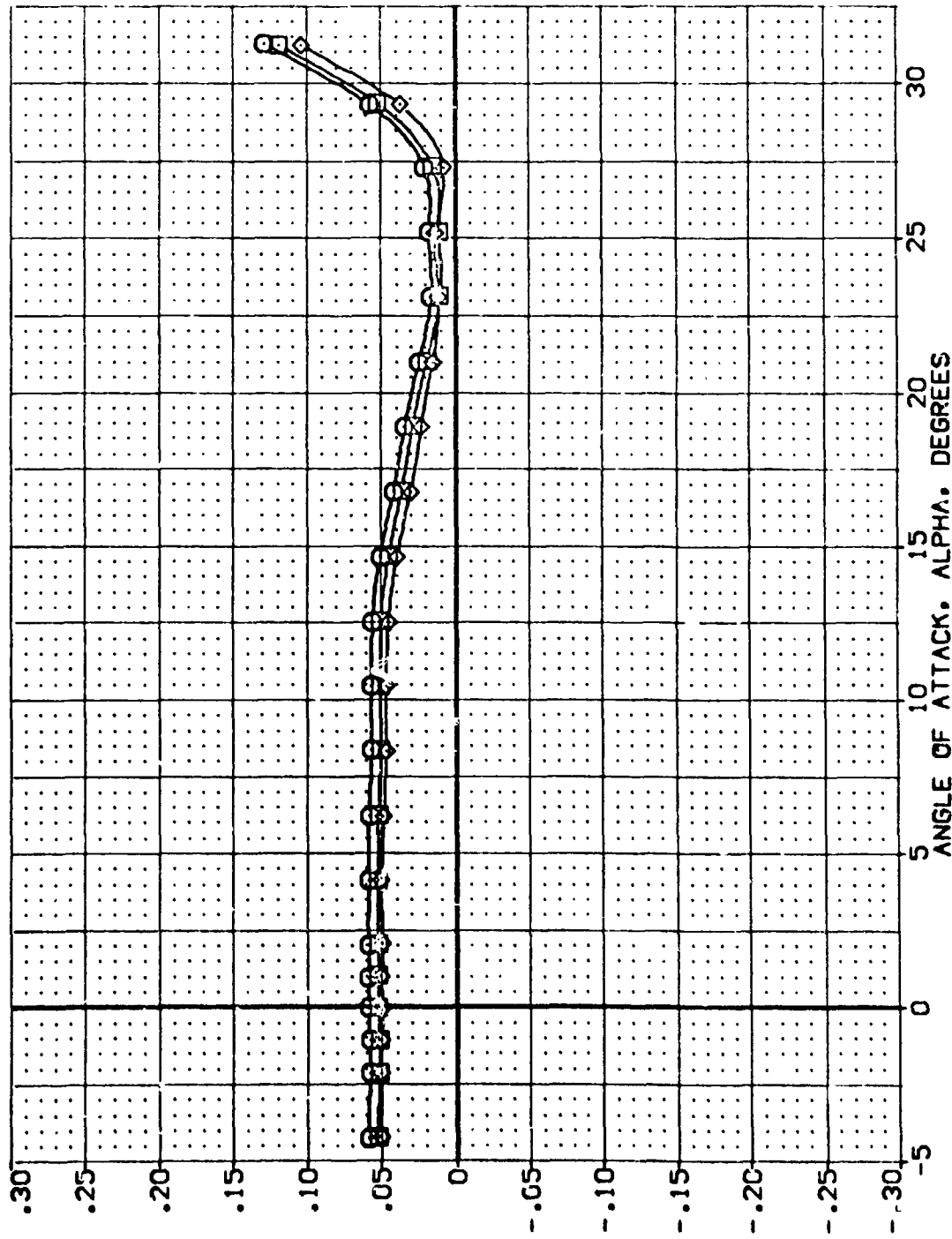


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

(A)MACH = .26



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(R02170)	0A528	B26C9 M7F8 V116Z8V85X9	.000	25.000	-12.000	-15.220	SREF 4.4119 SQ.FT.
(R02164)	0A528	B26C9 M7F8 V116Z8V85X9	.000	25.000	-12.000	-7.560	LREF 19.2298 INCHES
(R02323)	0A528	B26C9 M7F8 V116Z8V85X9	.000	25.000	-12.000	.000	BREF 37.3359 INCHES
							XMRP 43.5974 INCHES
							YMRP .0000 INCHES
							ZMRP 15.1875 INCHES
							SCALE .0405

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

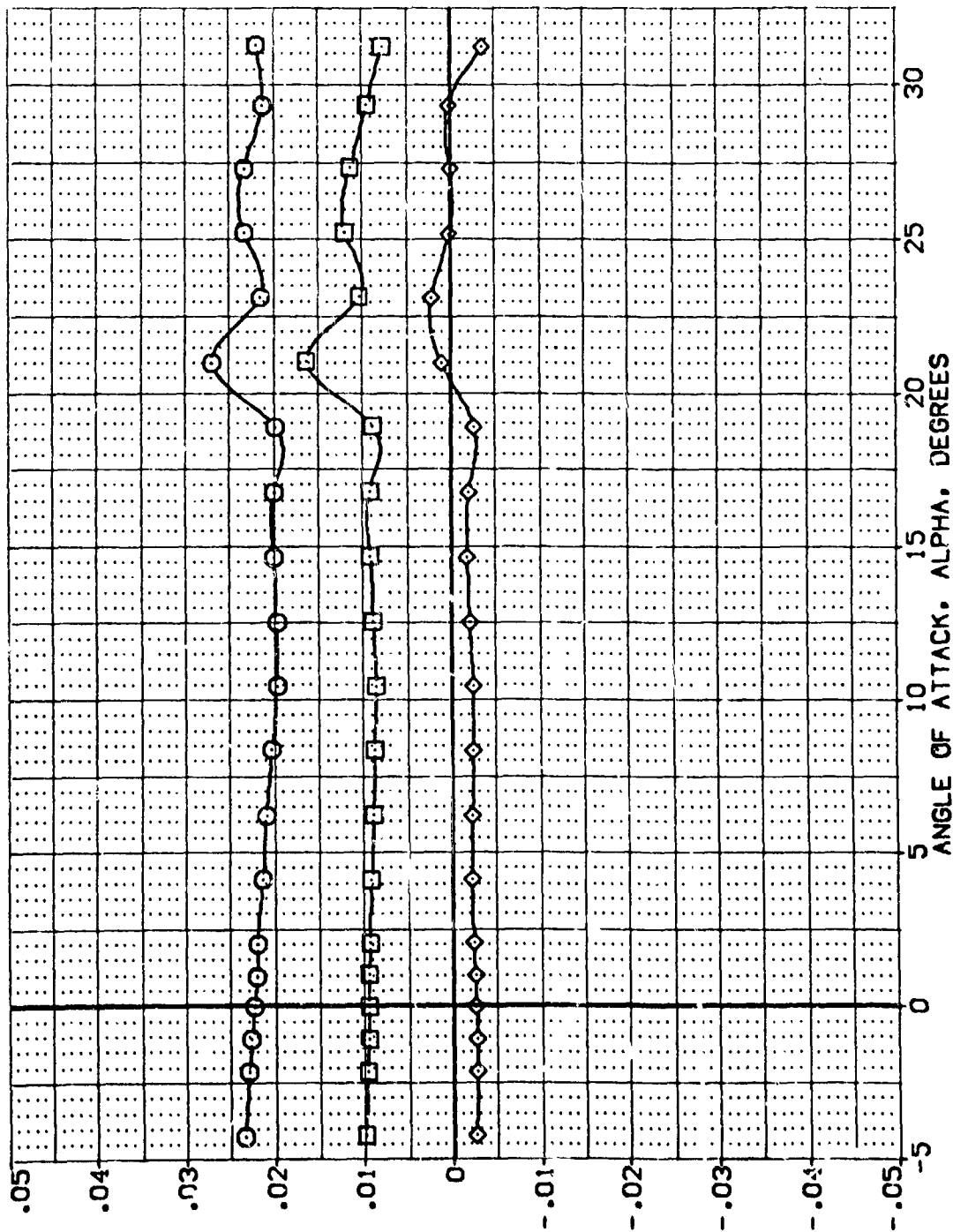
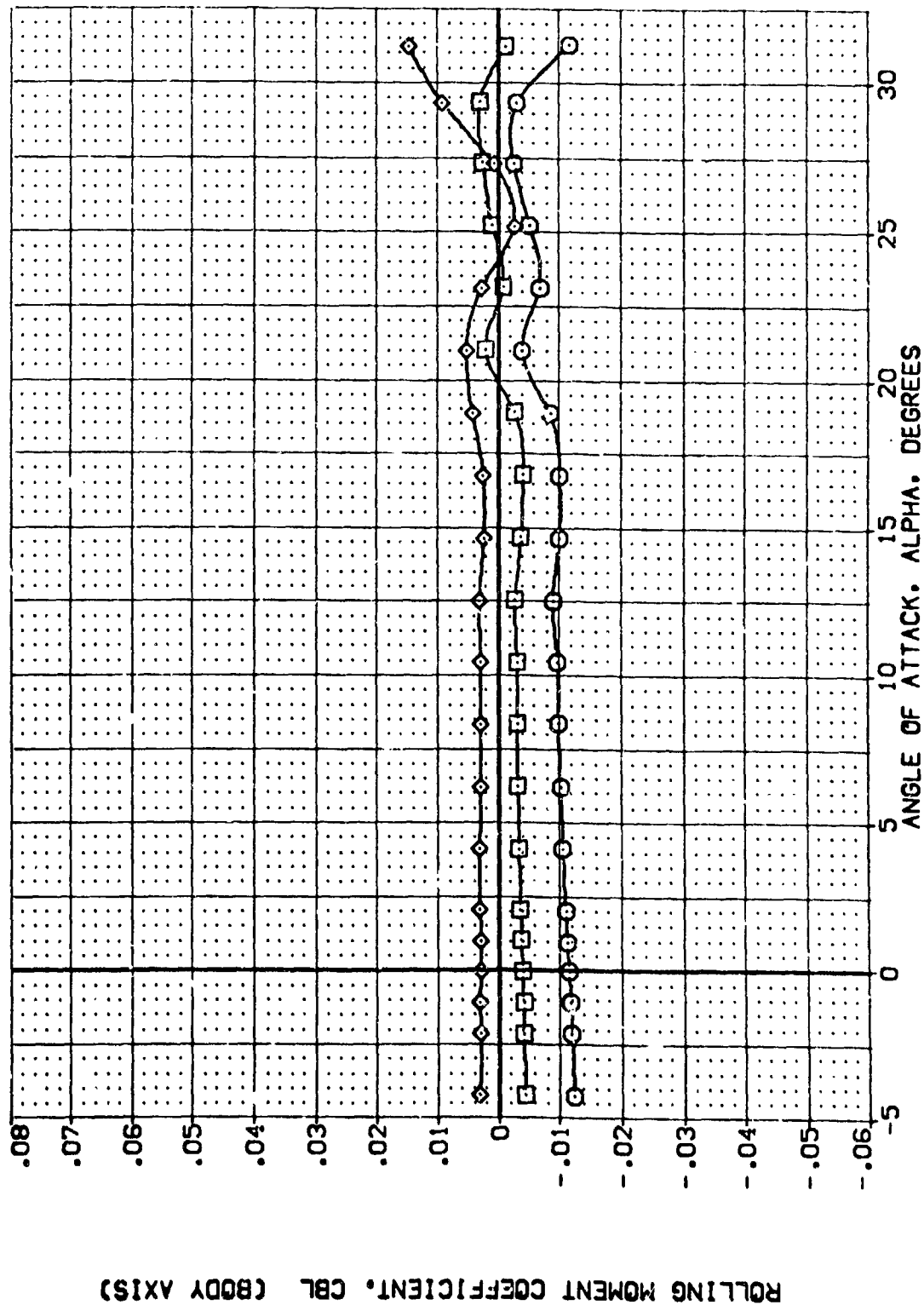


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BC'LAP	RUDDER	REFERENCE INFORMATION
(R02170)	B4528 B28C3 M7F8 V11E28V85X3	.000	25.000	-12.000	-16.220	SREF 4.4119 SQ.FT.
(R02164)	B4528 B28C3 M7F8 V11E28V85X3	.000	25.000	-12.000	-7.560	LREF 19.2239 INCHES
(R02373)	B4528 B28C3 M7F8 V11E28V85X3	.000	25.000	-12.000	.000	BREF 37.9359 INCHES
						XMRP 43.9574 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405





0A628 B26C9 M7F8 W116E28V8R5X9 (20Z170)

SYMBOL	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
	ALPHA	MACH	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA
○	.000	.260	.000	.000	.000	.000	4.4119	4.4119	4.4119
		BOFLAP	-12.000	20Z170	-16.220	20Z164	19.2298	19.2298	19.2298
		SPDRN	25.000	20Z323	.000		37.9359	37.9359	37.9359
							13.5874	13.5874	13.5874
							15.0000	15.0000	15.0000
							15.1875	15.1875	15.1875
							.0405	.0405	.0405

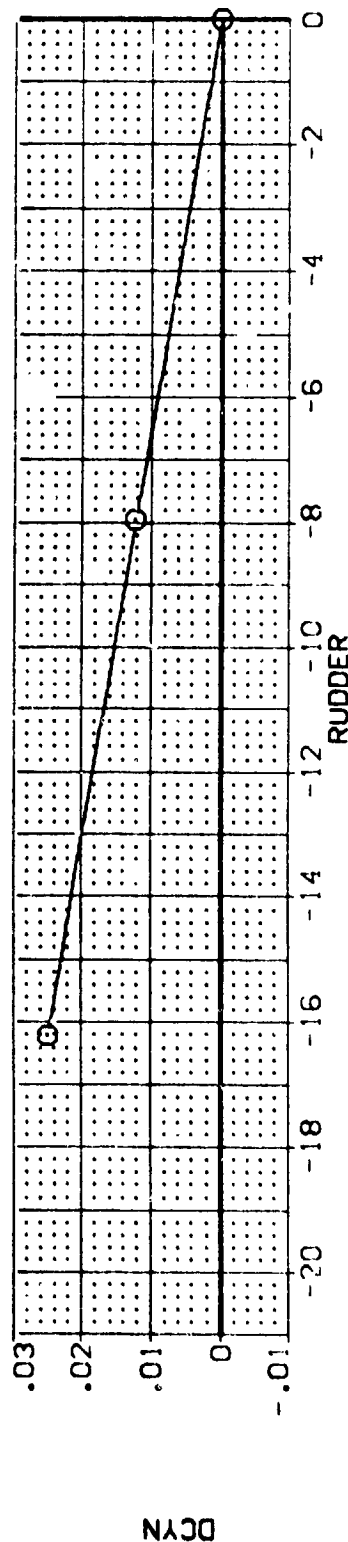
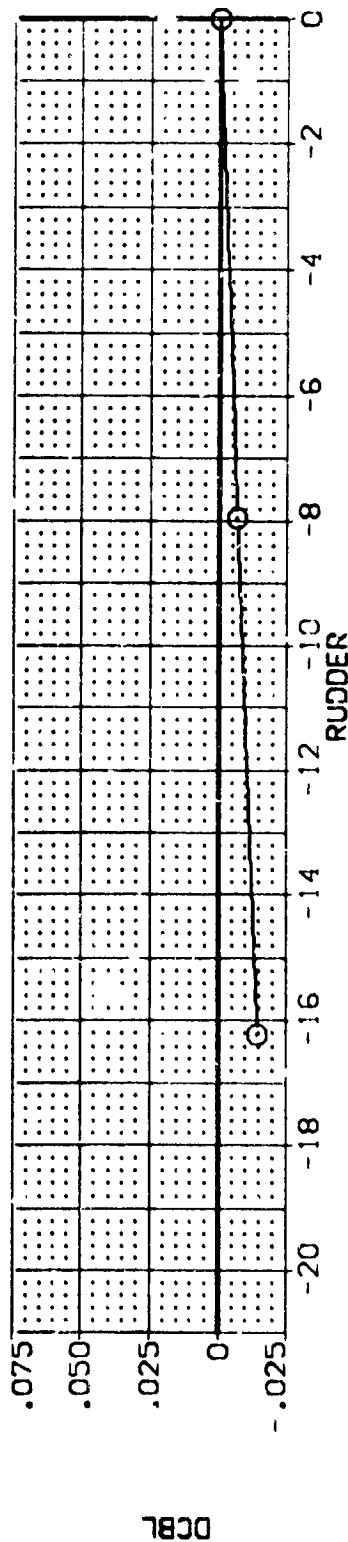
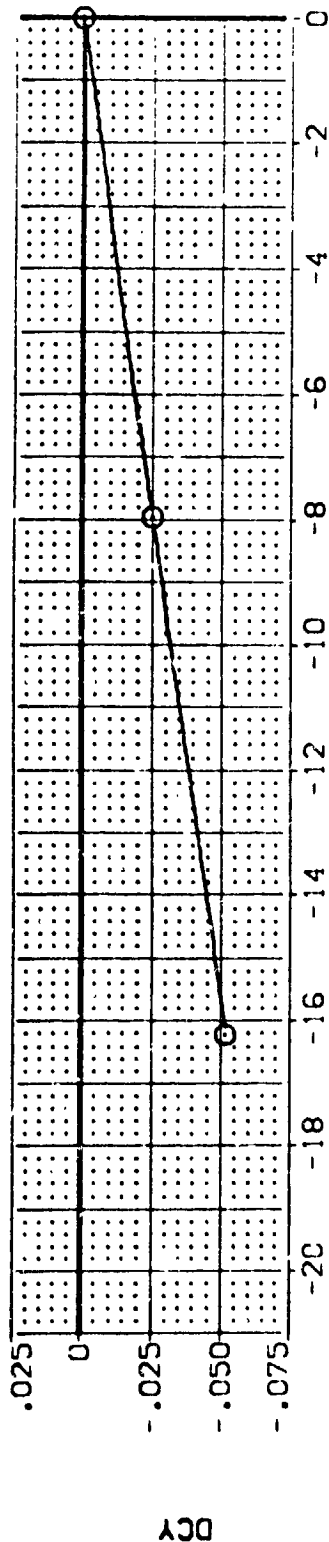


FIG 53 RUDDER EFFECTIVENESS, 25 DEG. FLARE.

(202170)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	5.000	.260	DELTON	RUDDER	SREF 4.4119
		.260	DELTON	RUDDER	LREF 19.2399
		.260	DELTON	RUDDER	BREF 37.9359
		.260	DELTON	RUDDER	XMRP 43.5974
		.260	DELTON	RUDDER	YMRP .0000
		.260	DELTON	RUDDER	ZMRP 15.1875
		.260	DELTON	RUDDER	SCALE .0405

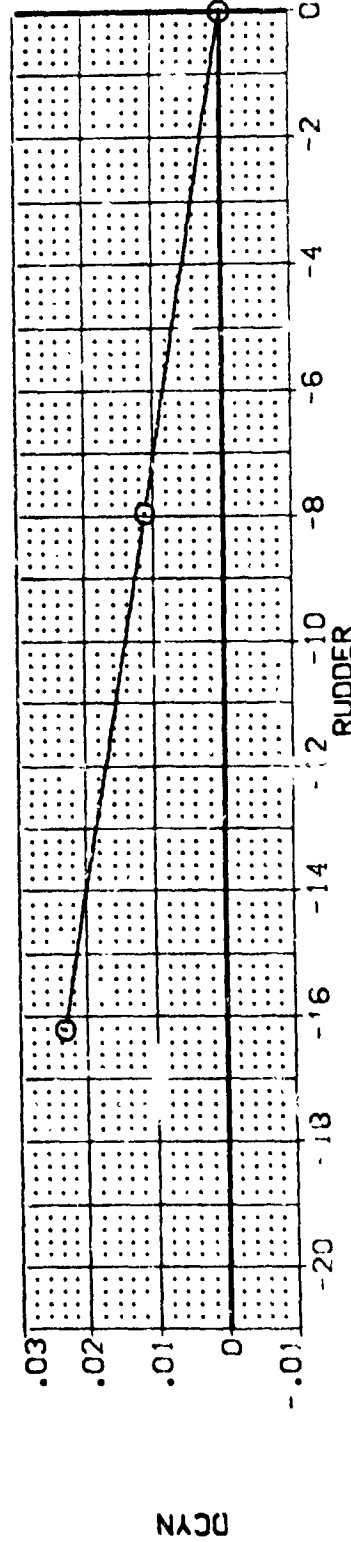
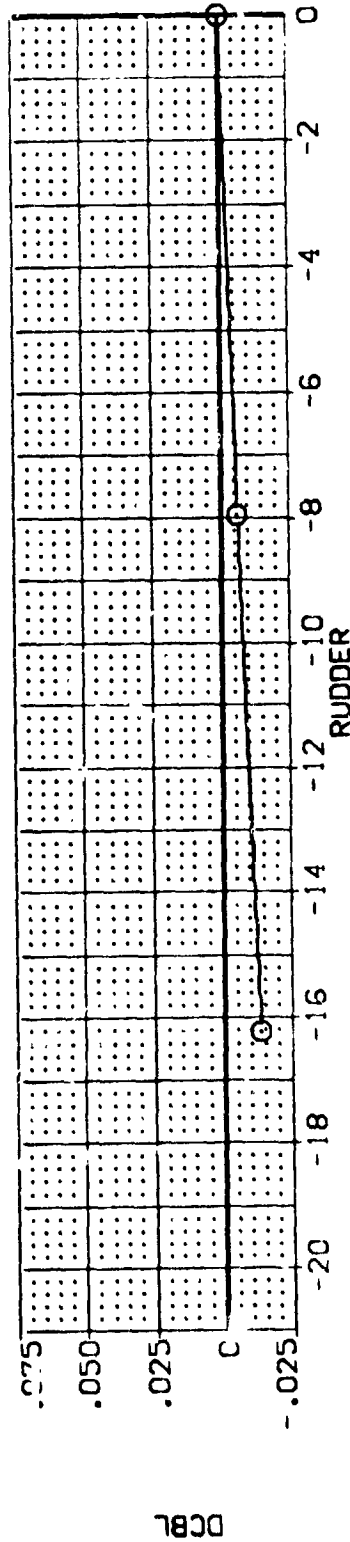
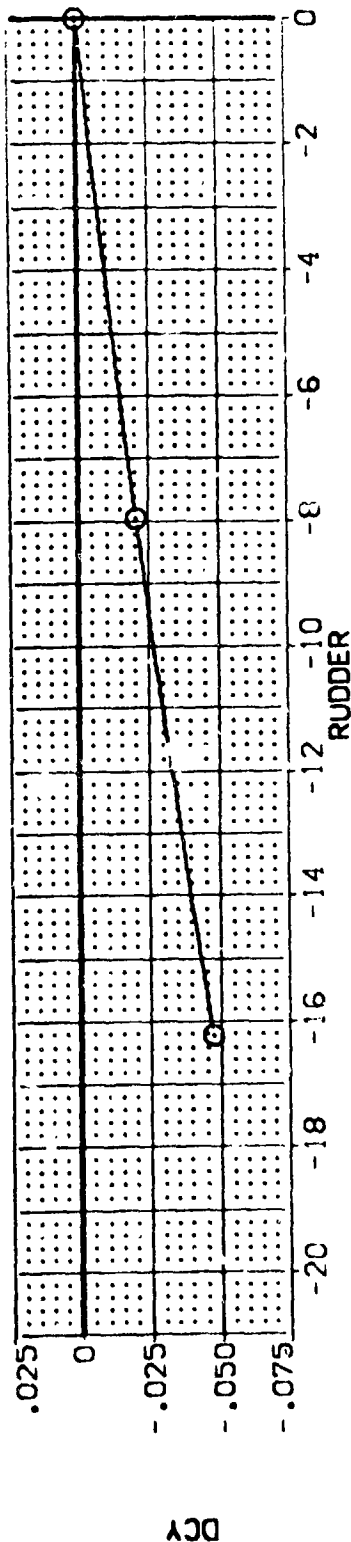


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLAPE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z170)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
ALPHA	10.000	MACH	.260	DEL VON	.000	DATA SET	RUDDER	SREF	4.4119	SCALE	10000
BOFLAP	-12.000	AILRON	.000	20Z170	.000	20Z164	-7.960	LREF	19.2299	SCALE	10000
SPOBRK	25.000	BETA	.000	20Z323	.000			XREF	37.9359	SCALE	10000
								YREF	43.5974	SCALE	10000
								ZREF	15.1875	SCALE	10000
								SCALE	.0405		

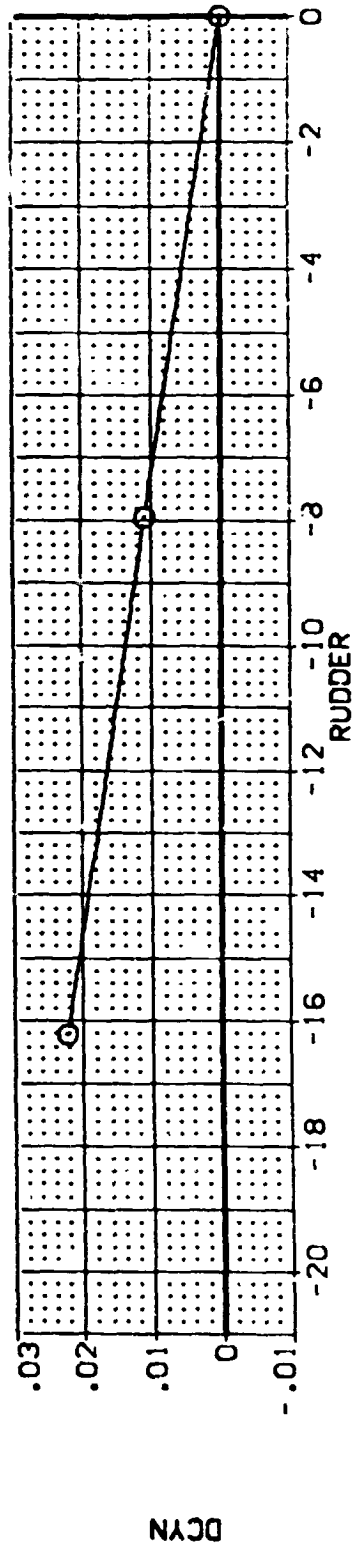
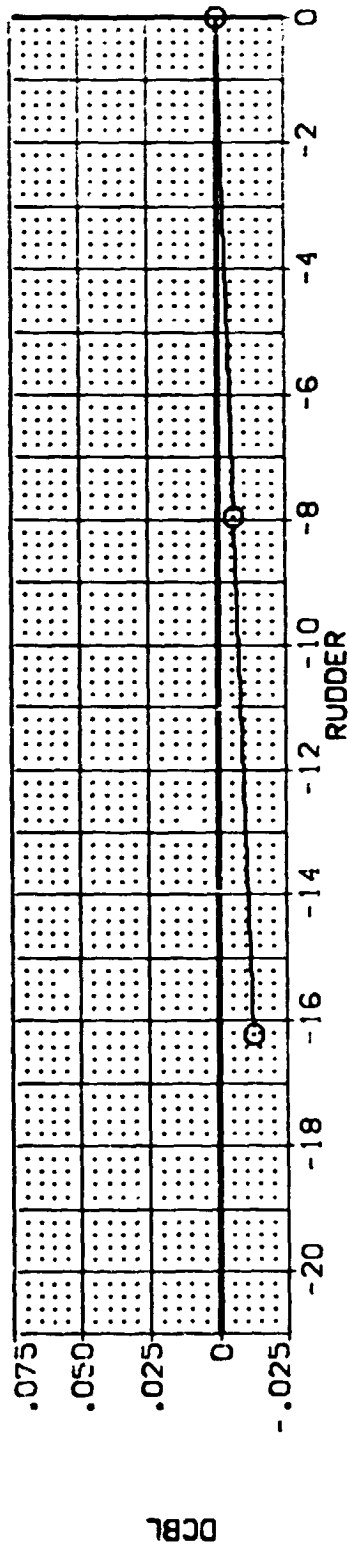
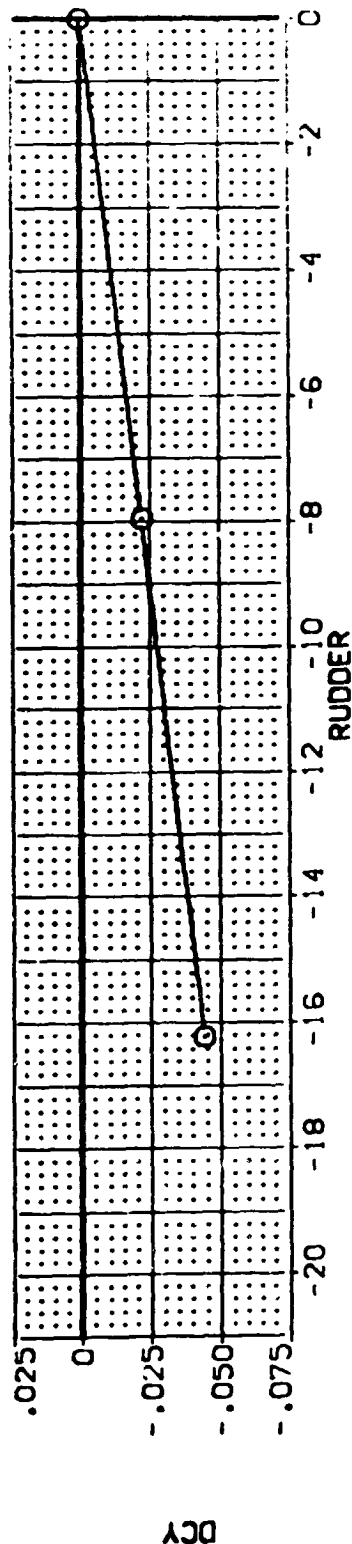


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE



(2DZ170)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL ALPHA MACH BOFLAP SPOBRK

0 15.000 .260 DELVEN AILRON BETA

PARAMETRIC VALUES .000 DATASET 202170 .000 202323

DATA SOURCE RUDDER -16.220 .000

REFERENCE INFORMATION SQ.F.T. INCHES INCHES INCHES INCHES SCALE

4.4119 19.2759 37.9759 43.5974 15.000 15.1875 .0405

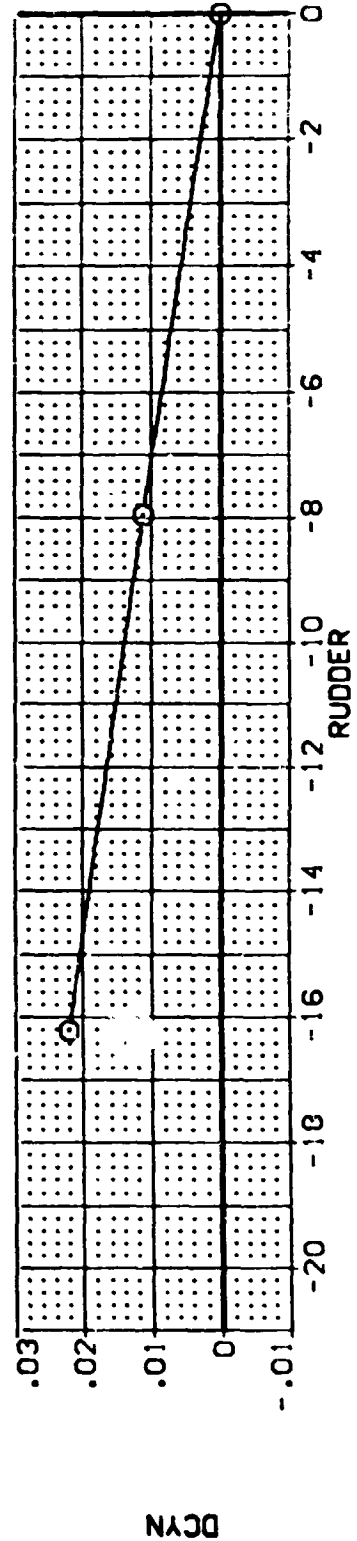
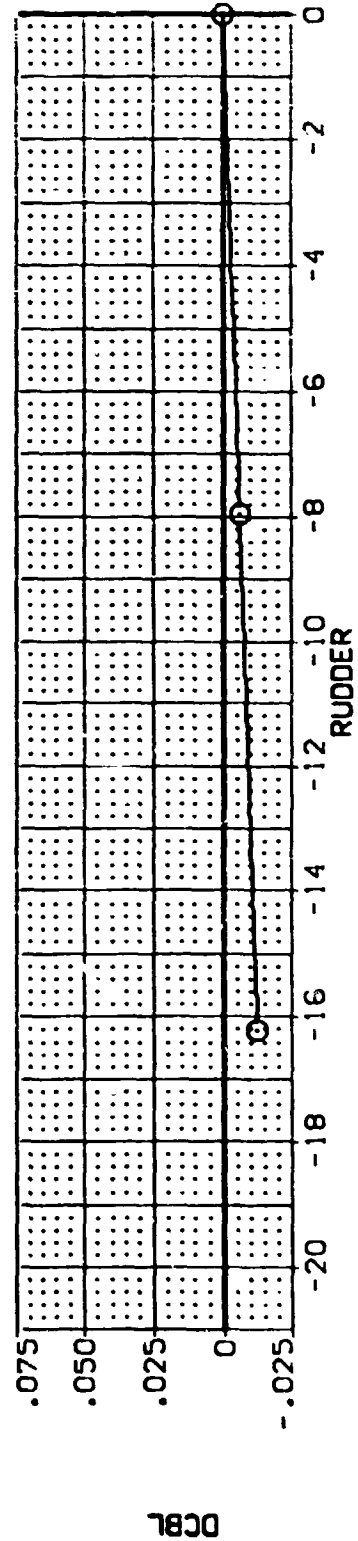
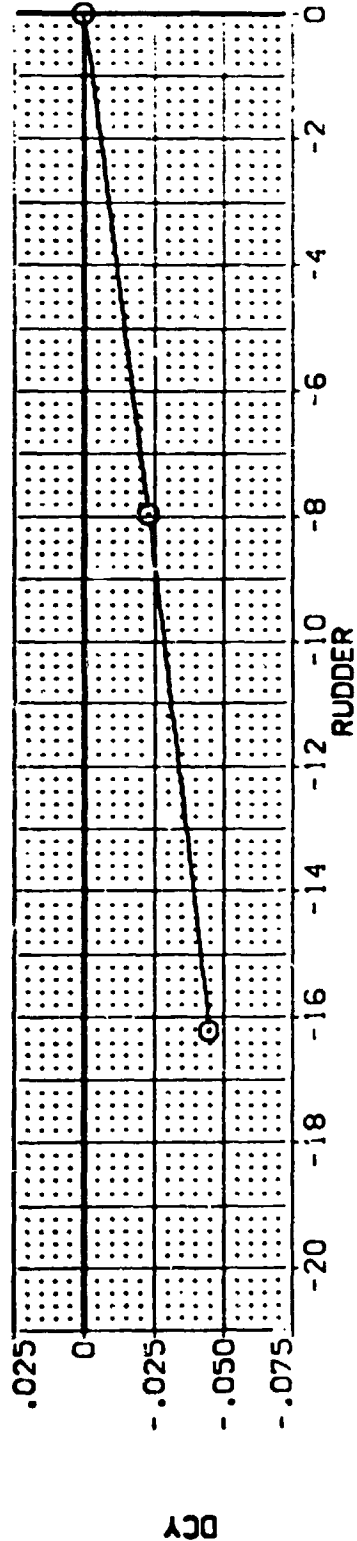


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

(202170)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

ALPHA 20.000  
MACH .260  
BOFLAP -12.000  
SPDRK 25.000

PARAMETRIC VALUES  
DELTA .260  
A1LRN .000  
BETA .000

DATA SOURCE  
RUDDER -16.220  
DATASET 202170  
RUDDER -7.960  
DATASET 202164

REFERENCE INFORMATION  
SREF 4.4119  
LREF 19.2299  
XREF 37.9359  
YREF 43.5974  
ZREF .0000  
SCALE 15.1875  
SCALE .0405

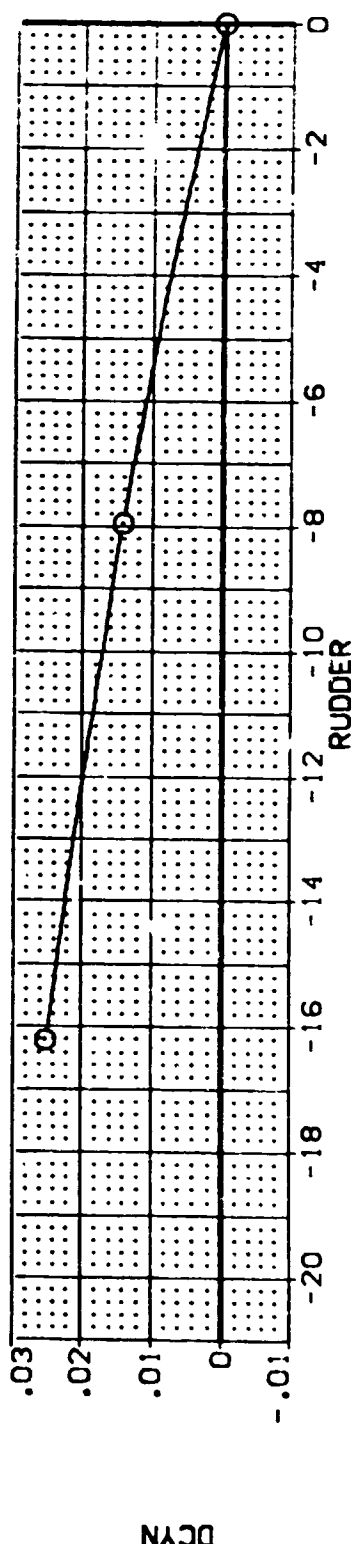
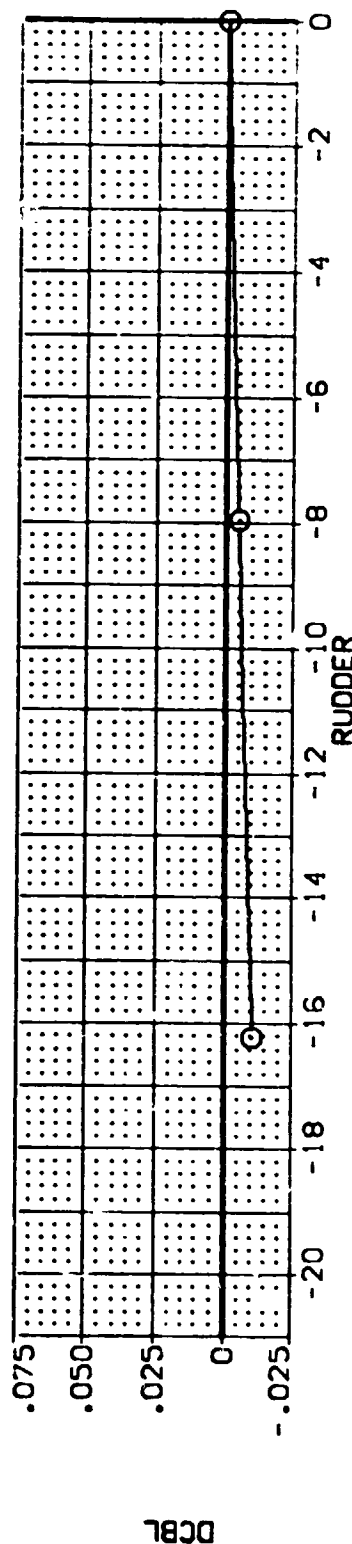
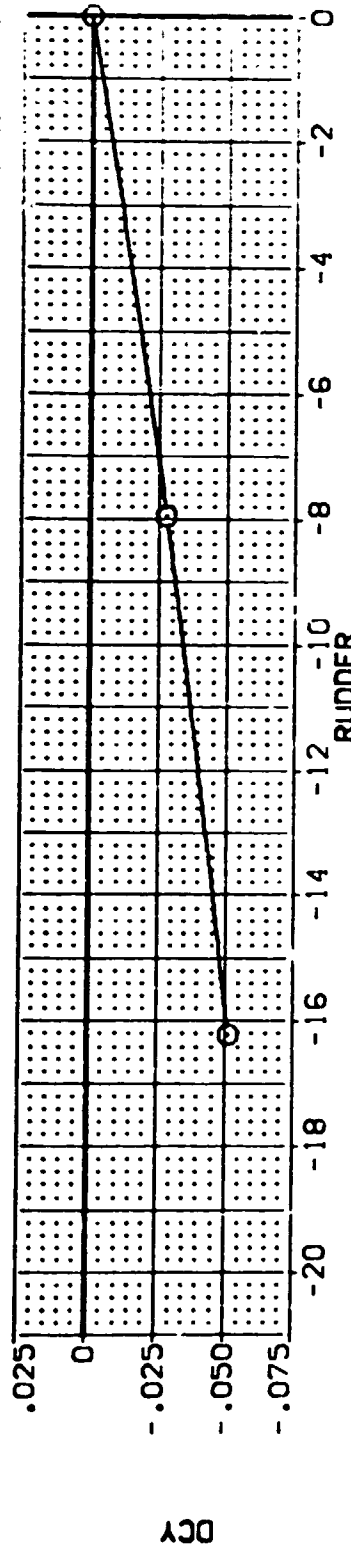


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

(202170)

W116E28V8R5X9

M7F8

B26C9

0A62B

SYMBOL  
O

ALPHA  
25.000

MACH  
0.760

DELTA  
-12.000

AILRON  
75.000

BETA  
25.000

DATA SOURCE  
DATASET  
202170

RUDDER  
-16.270

SCALE  
.000

REFERENCE INFORMATION  
SQ.FT.  
4.4119

NG-FES  
19.2299

NG-FES  
27.9359

NG-FES  
43.5974

NG-FES  
.0000

NG-FES  
15.1875

SCALE  
.0405

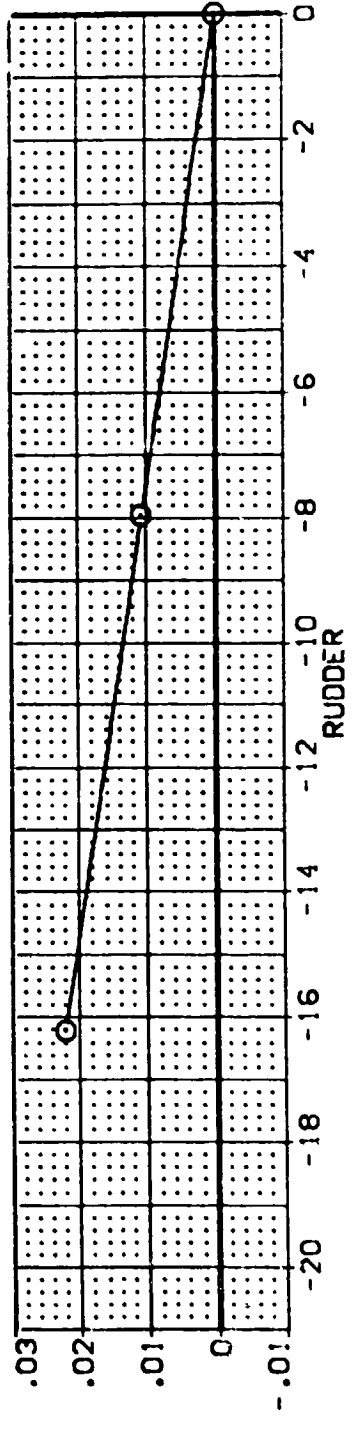
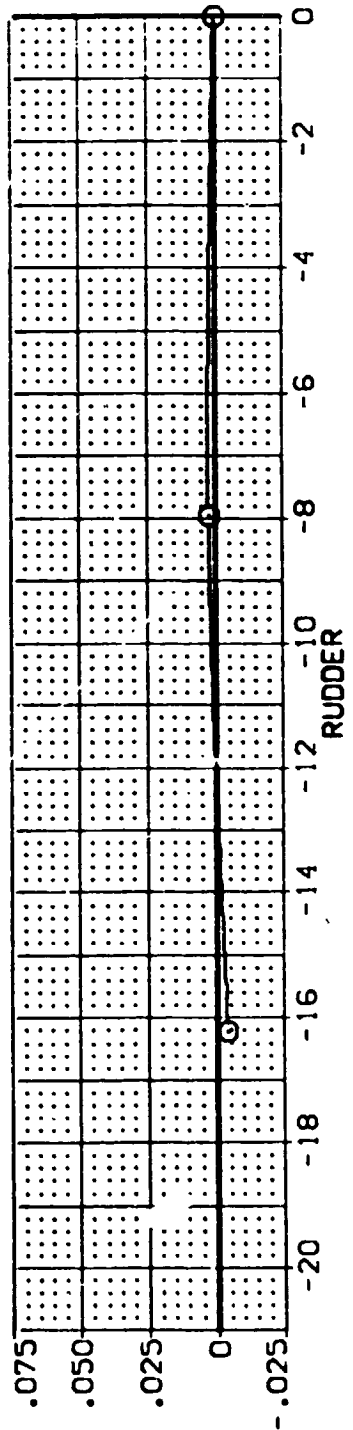
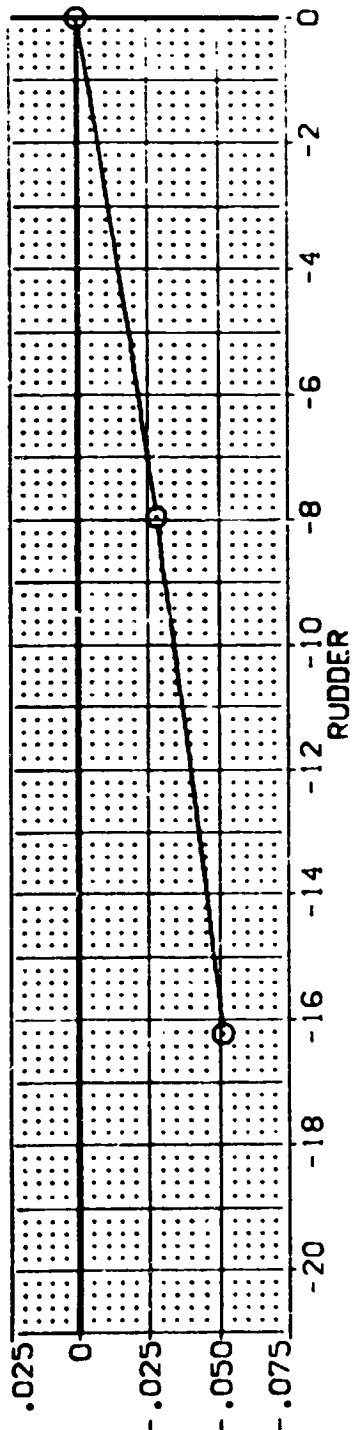


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z170)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
		MACH	DELTA	DELTA	DATA SET	RUDDER	REF	REF	SCALE	SCALE
○	20.000	0.760	DELTA	DELTA	.000	20Z170	REF	REF	4.4119	SO. FT.
		BDFLAP	-12.000	ATLRON	.000	20Z170	REF	REF	19.2799	INCHES
		SPOBRK	25.000	BETA	.000	20Z323	REF	REF	37.9359	INCHES
							YMRP	YMRP	43.5974	INCHES
							ZMRP	ZMRP	.0000	INCHES
							SCALE	SCALE	15.1875	INCHES
									.0405	SCALE

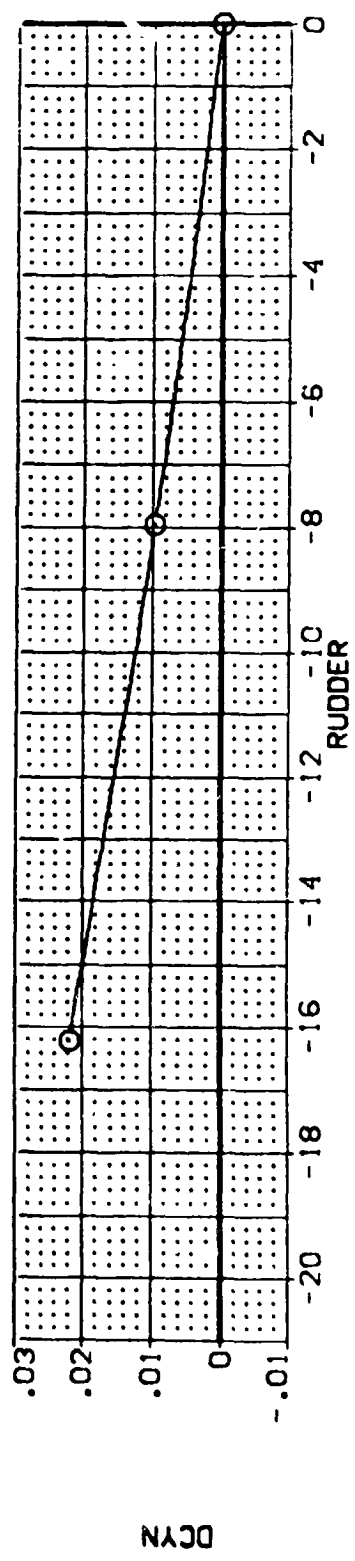
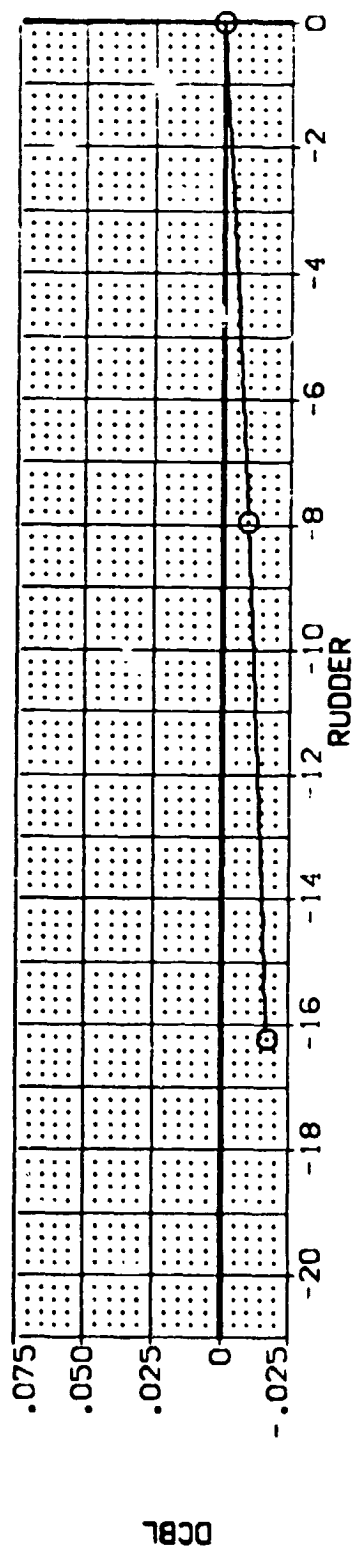
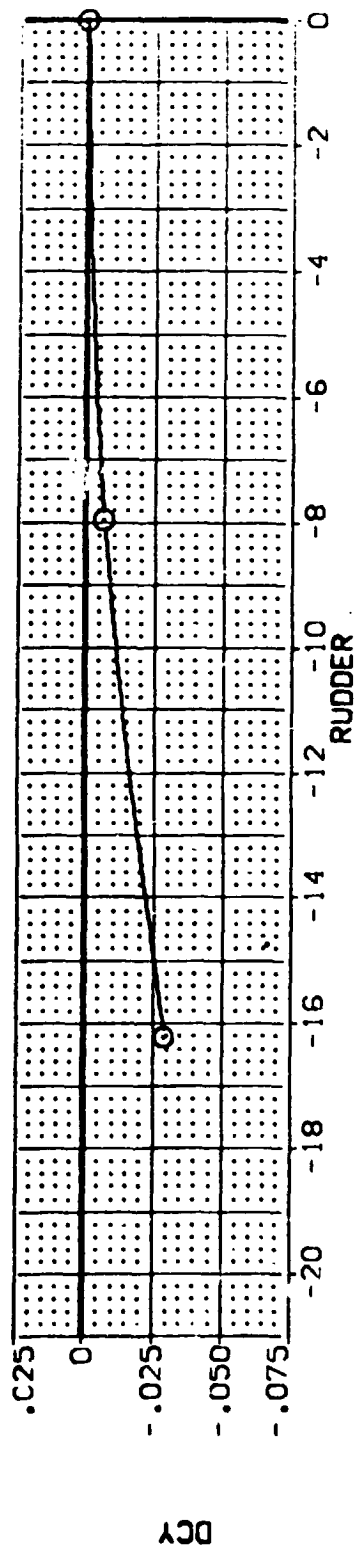


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z170)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	.000	BDFLAP	.260	DELTA	.000	RUDDER	SREF	SO.F1
		SPOBRK	-12.000	AILRON	.000	20Z170	REF	INC.F5
			25.000	BETA	.000	20Z323	REF	INC.F5
					.000		REF	INC.F5
							YMRP	INC.F5
							ZMRP	INC.F5
							SCALE	SCALE

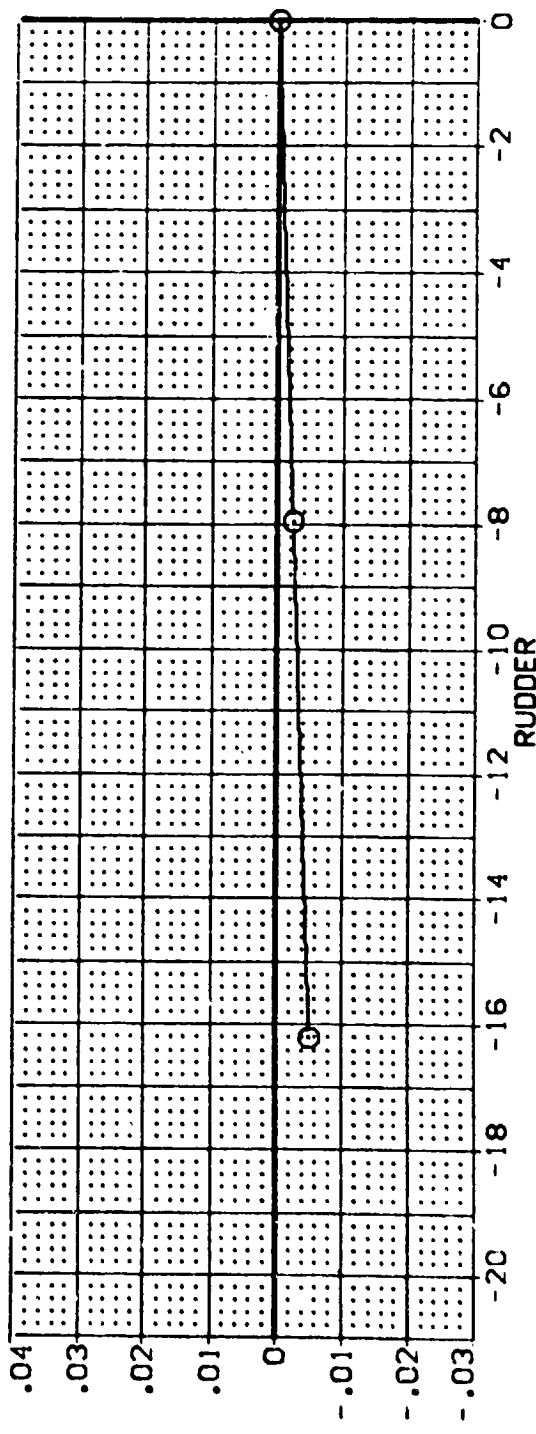
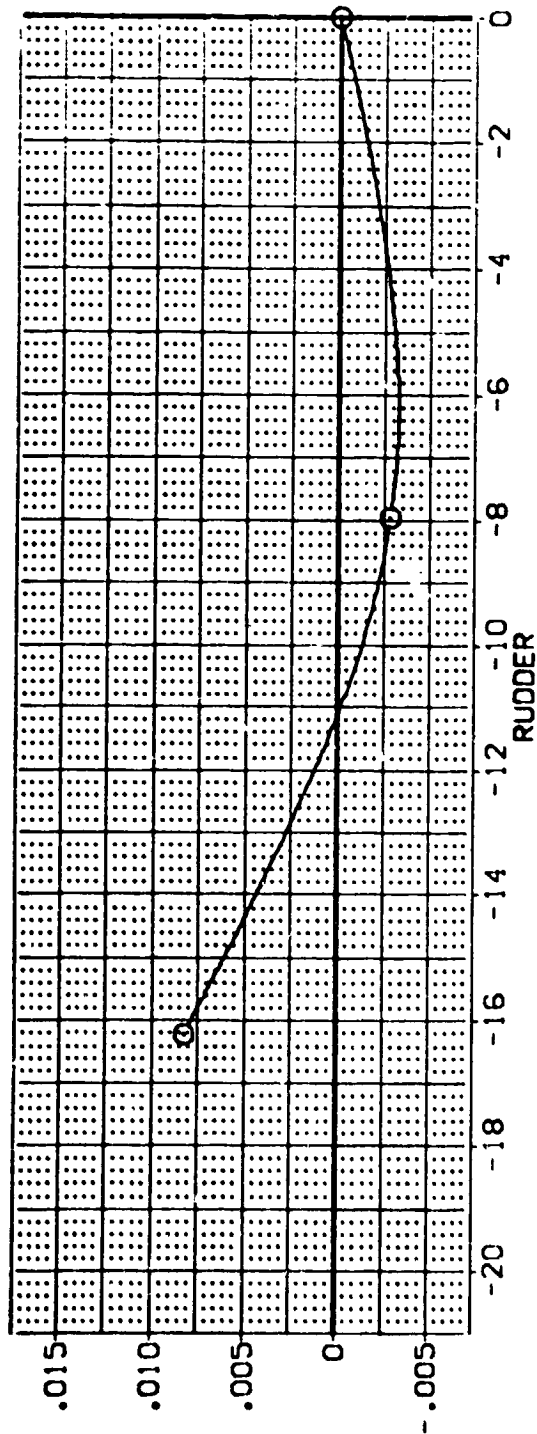


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z170)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	5.000	.260	DELTA	RUDDER	4.119
		-12.000	AIRLON	DATA SET	19.2299
		25.000	BETA	20Z170	37.9359
				20Z323	43.5874
					0.000
					15.1875
					SCALE
					.0405

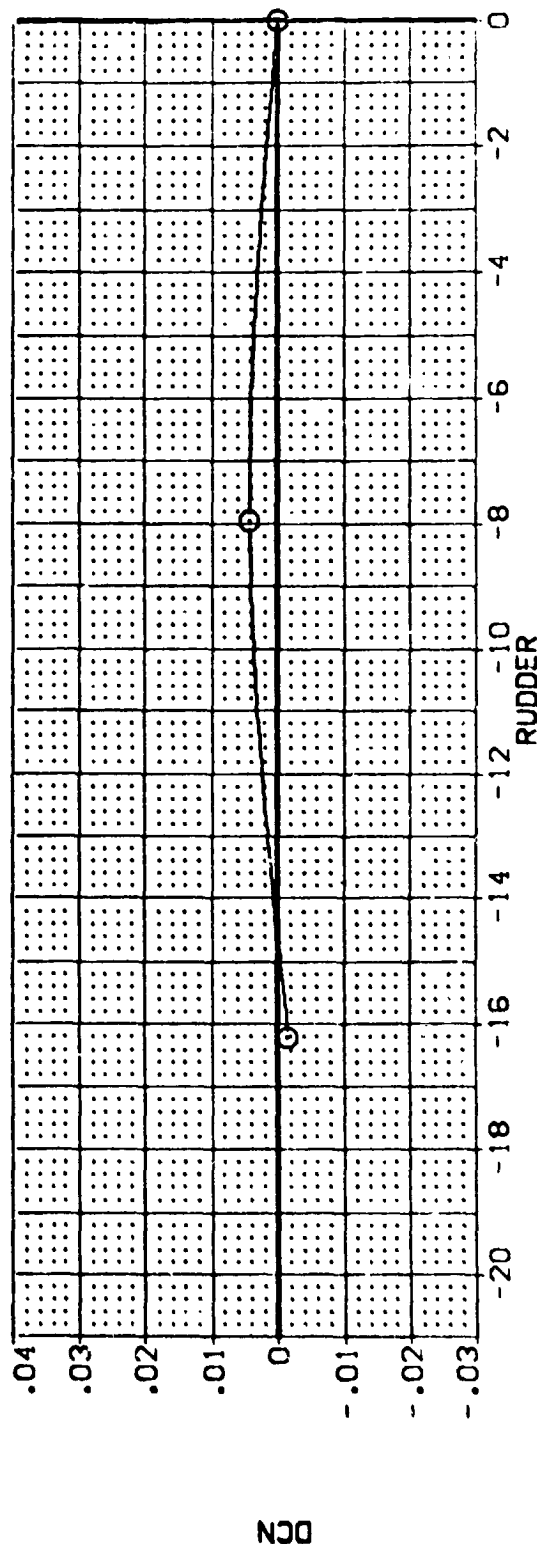
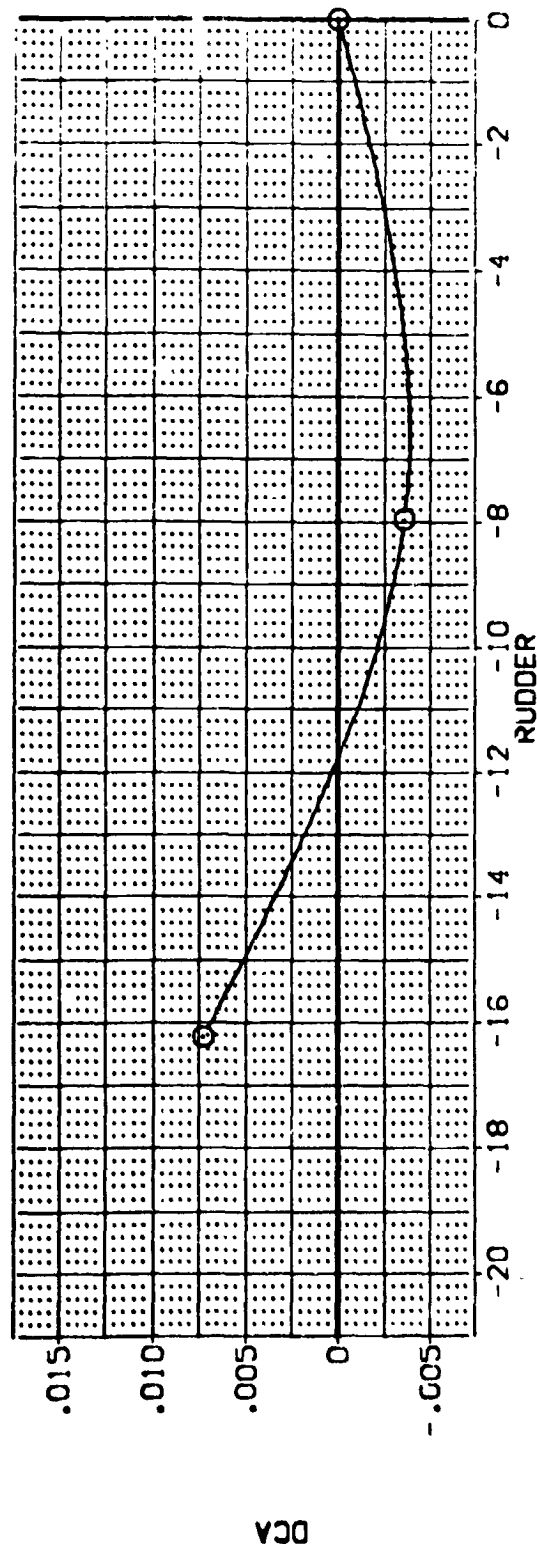


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (2DZ170)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION				
		MACH	DELTA	DELTA	DELTA	RJDDER	RJDDER	SREF	LRREF	LRREF	LRREF	LRREF
0	10.000	80FLAP	-12.000	ALLRON	.000	20Z170	-16.220	4.4119	19.2759	37.9359	43.5974	15.0000
		SPDRK	25.000	BETA	.000	20Z323	.000	15.0000	15.1875	15.1875	15.1875	15.1875
								SCALE	SCALE	SCALE	SCALE	SCALE

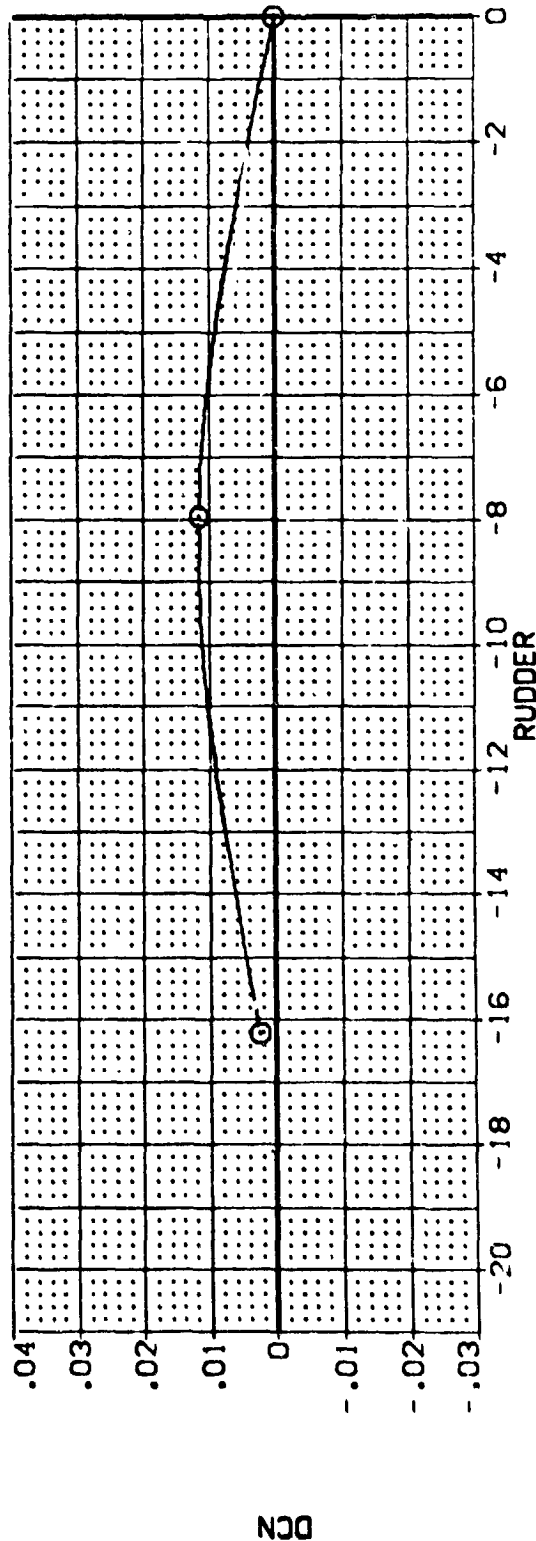
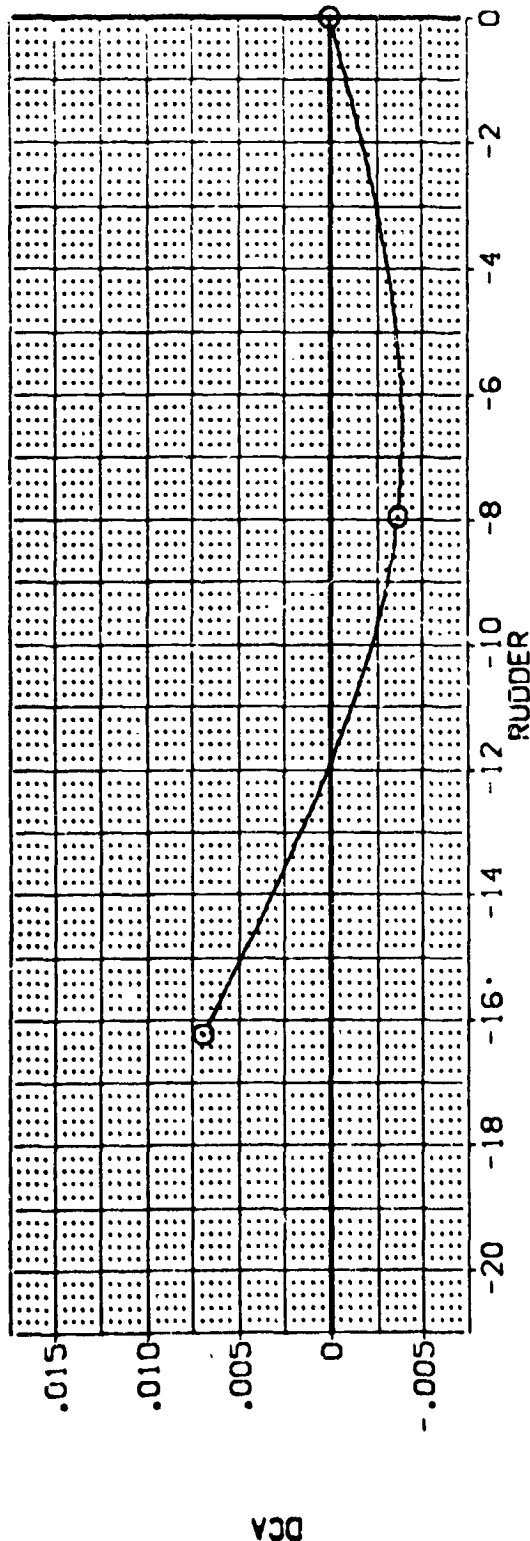


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z170)

SYMBOL  
O

ALPHA  
15.000

MACH  
BOTLAP  
SPDRK

PARAMETRIC VALUES  
.260 DELVON  
-12.000 ALLRON  
25.000 BETA

.000 DATASET  
.000 20Z170  
.000 20Z223

DATA SOURCE  
RUDDER  
-16.220  
.000

DATASET  
20Z164

RUDDER  
-7.567

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE

4.4119  
9.2799  
37.9359  
43.5874  
.0000  
15.1875  
.0405

SO.FT.  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
SCALE

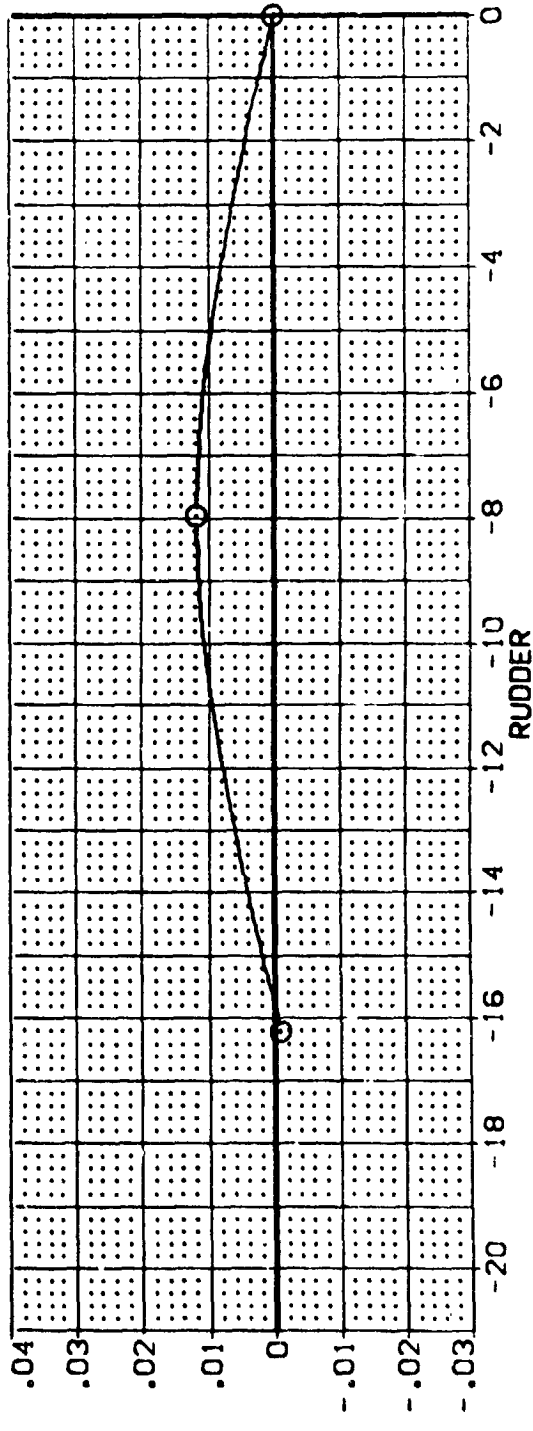
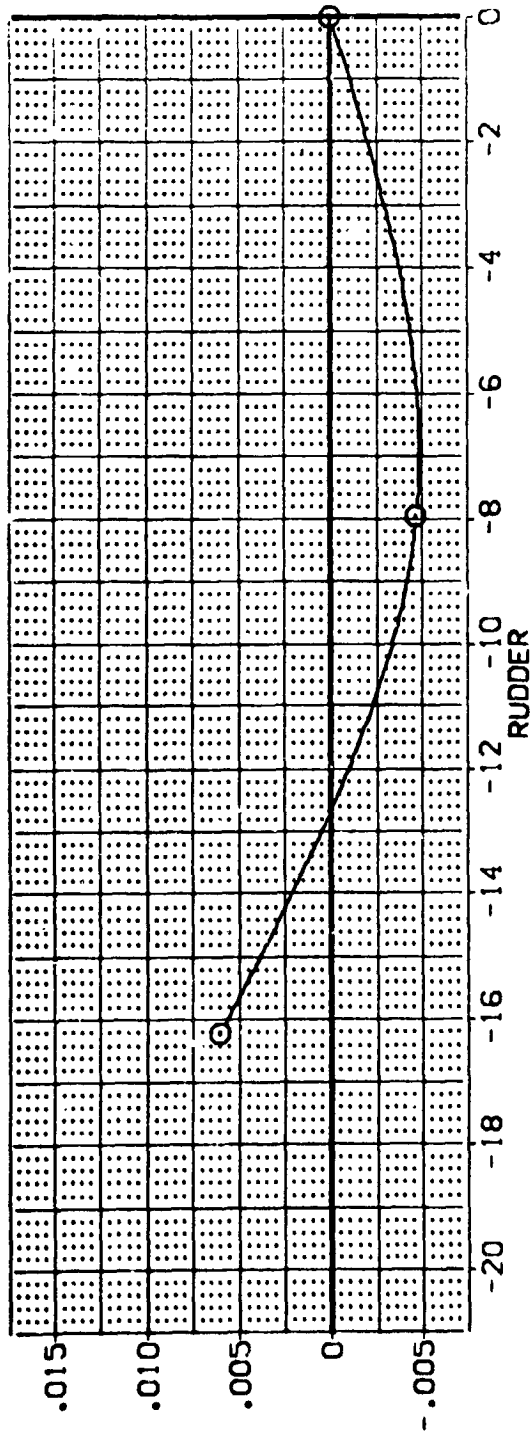


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE



0A62B B26C9 M7F8 W116E28V8R5X9 (20Z170)

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
ALPHA	20.000	MACH	.260	DELTA	.000	DELTA	4.4119	SO.FT.
BOFLAP	-12.000	DELTA	-12.000	DELTA	.000	DELTA	19.2299	INCHES
SPOBRK	25.000	BETA	25.000	DELTA	.000	DELTA	37.9359	INCHES
				DELTA	.000	DELTA	43.5974	INCHES
				DELTA	.000	DELTA	15.1875	INCHES
				DELTA	.000	DELTA	.0405	SCALE

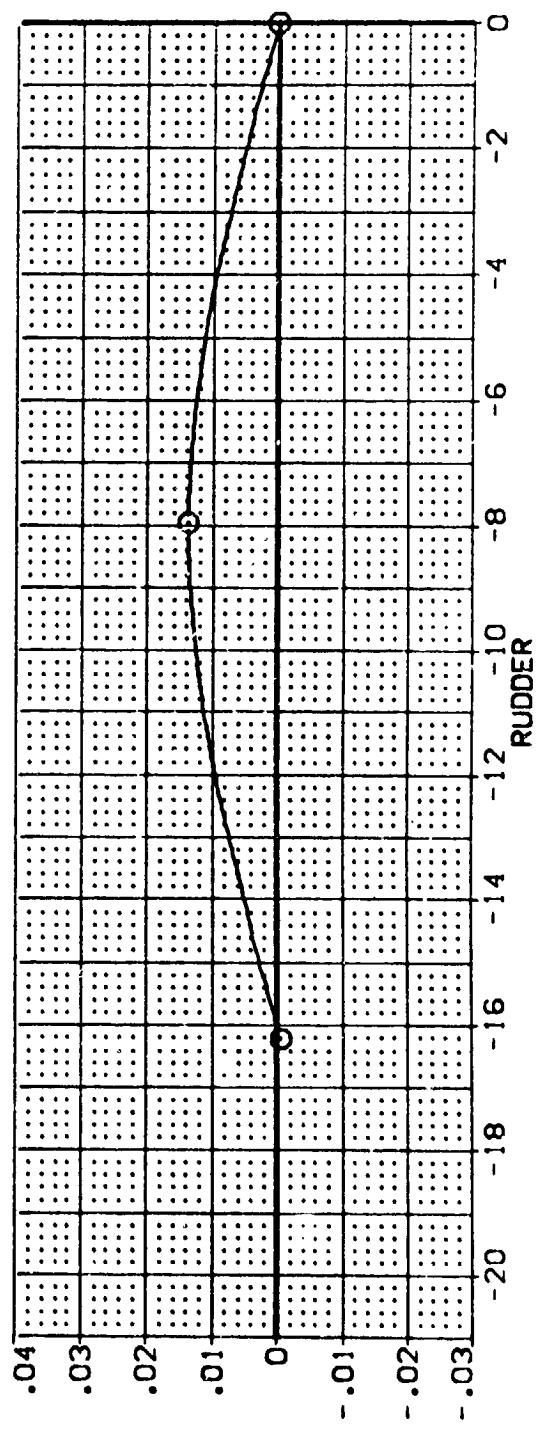
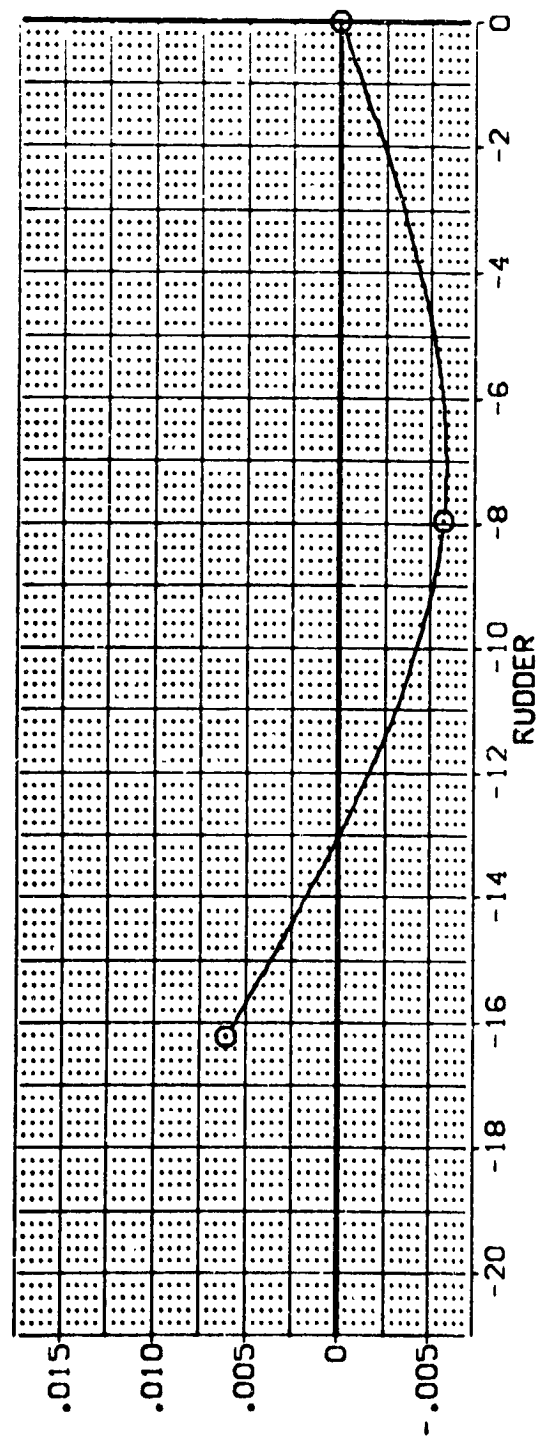


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE

REFERENCE INFORMATION

4.4119	SC.FT.
19.2299	INCHES
37.9359	INCHES
43.5574	INCHES
.0000	INCHES
15.1875	INCHES
.0405	SCALE

SCALE  
ZMPP  
YMPP  
XMPP  
BREF  
LREF  
SPREF

DATA SOURCE  
RUDDER  
-16.220  
.000

PARAMETRIC VALUES	
.260	DELTON
12.000	ALIRON
25.000	BETA

**MACH  
BOFLAP  
SPOBRK**

ALPHA  
25.000

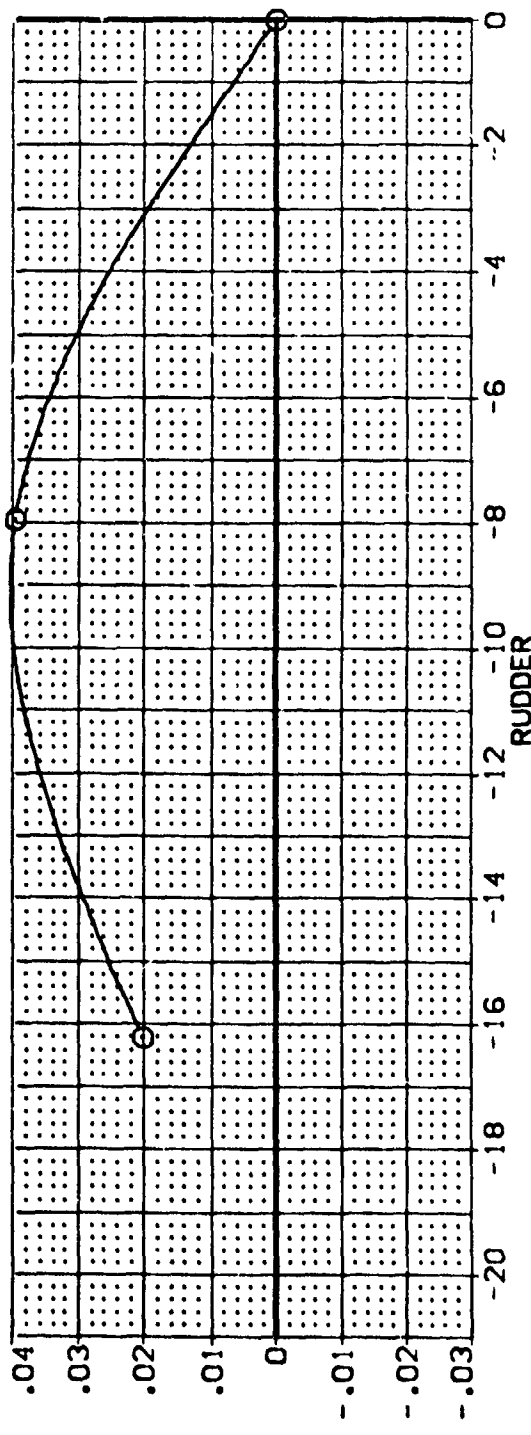
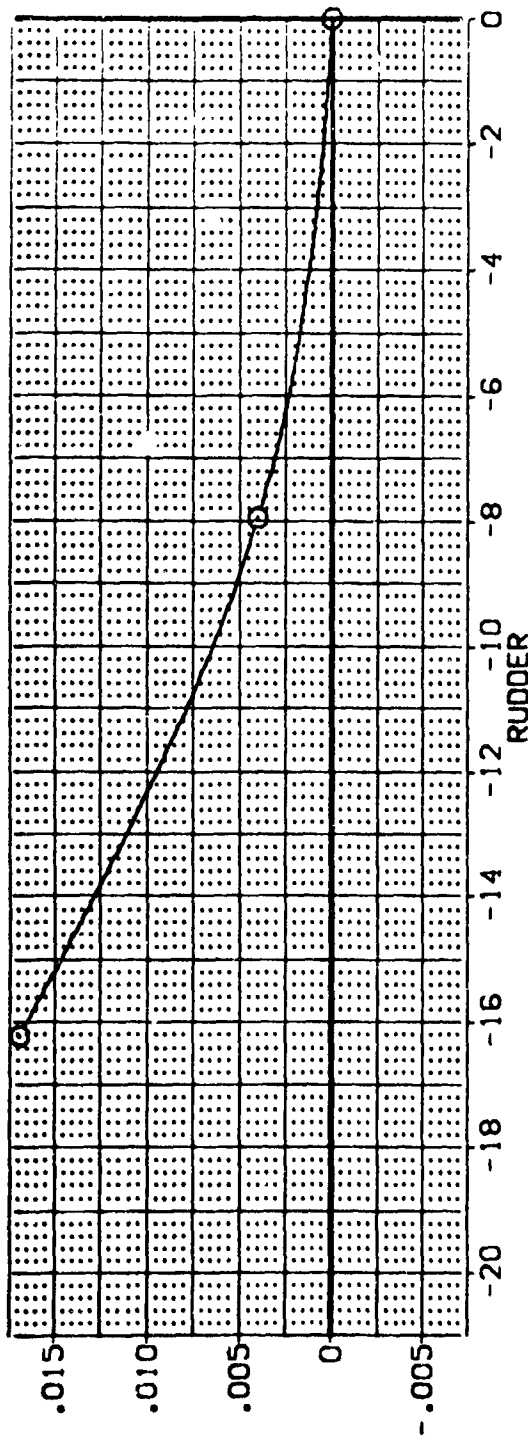
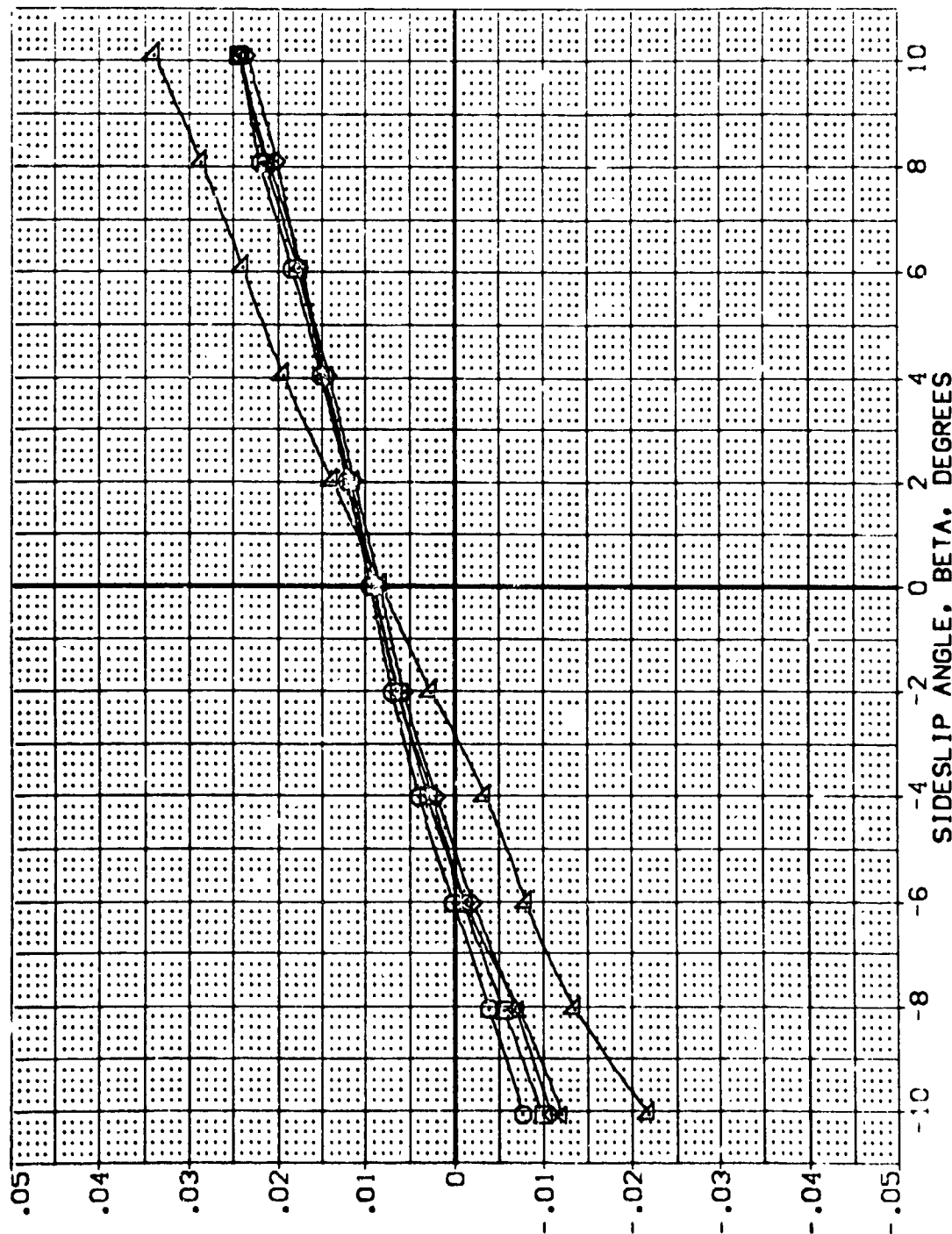


FIG 56 RUDDER EFFECTIVENESS, 25 DEG. FLARE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPDBRK	BDFLAP	REFERENCE INFORMATION	
[RDZ165]	0A628 B26C9 MTF8 V116E28V895X9	.000	.000	25.000	-12.000	SREF	4.4119
[RDZ166]	0A628 B26C9 MTF8 V116E28V895X9	5.000	.000	25.000	-12.000	LREF	19.2799
[RDZ167]	0A628 B26C9 MTF8 V116E28V895X9	10.000	.000	25.000	-12.000	BREF	37.5379
[RDZ168]	0A628 B26C9 MTF8 V116E28V895X9	15.000	.000	25.000	-12.000	XMRP	43.5974
[RDZ169]	0A628 B26C9 MTF8 V116E28V895X9	20.000	.000	25.000	-12.000	YMRP	15.1872
						SCALE	.040



YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

FIG 57 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96 DEG, 25 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	SPORON	BOFLAP	REFERENCE INFORMATION
[R02155]	DA628 B26C9 MTF 8 V116E28V895X9	.000	.000	25.000	-12.000	SREF 4.4119
[R02156]	DA628 B26C9 MTF 8 V116E28V895X9	5.000	.000	25.000	-12.000	LREF 19.2299
[R02157]	DA628 B26C9 MTF 8 V116E28V895X9	10.000	.000	25.000	-12.000	BREF 37.9379
[R02158]	DA628 B26C9 MTF 8 V116E28V895X9	15.000	.000	25.000	-12.000	XREF 43.5974
[R02159]	DA628 B26C9 MTF 8 V116E28V895X9	20.000	.000	25.000	-12.000	YREF .0000
						ZREF 15.1875
						SCALE .0405

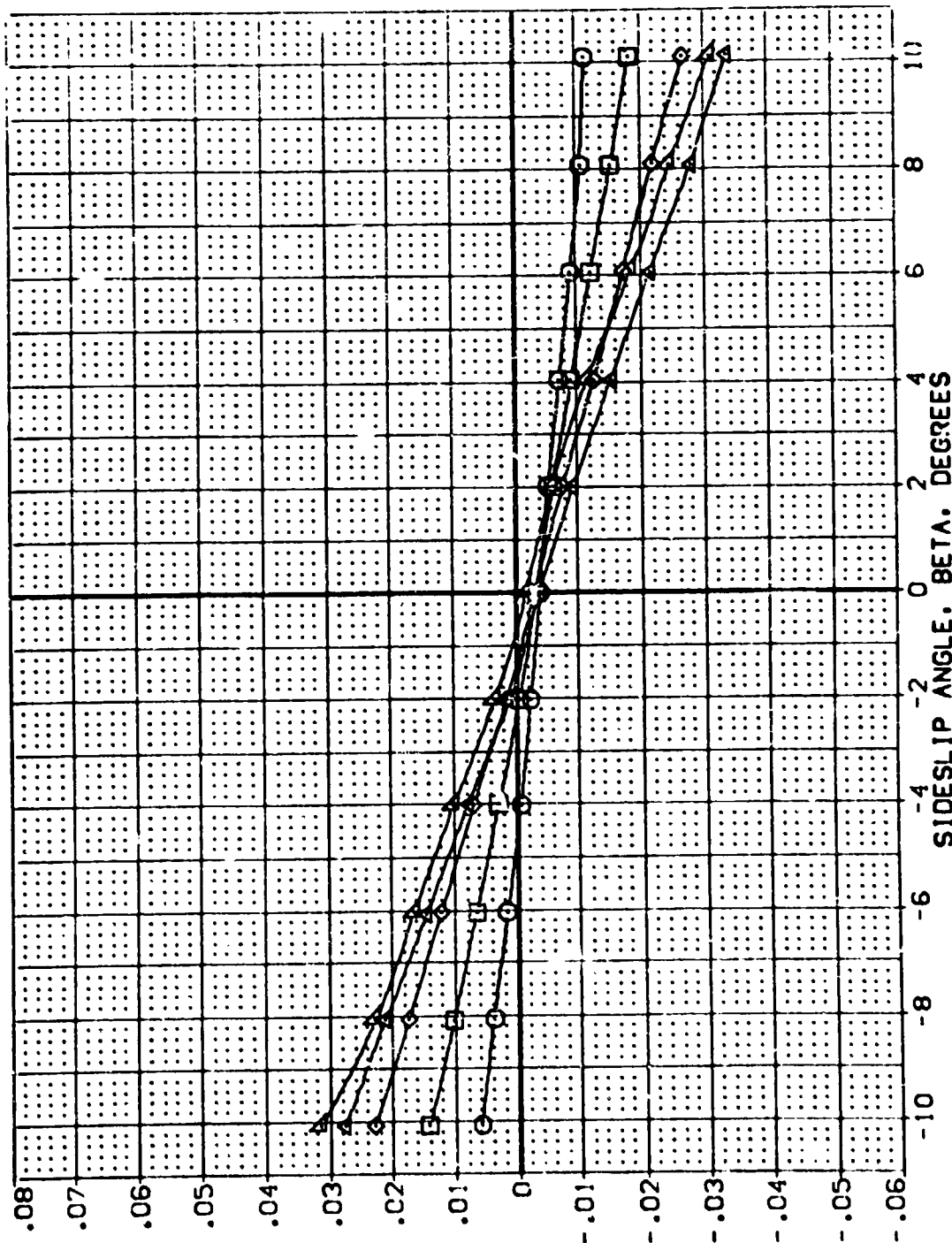


FIG 57 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96 DEG, 25 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RZ]153	04528	B76C9	M7F8	V11GE20VBR3X9
[RZ]154	04528	B76C9	M7F8	V11GE20VBR3X9
[RZ]157	04528	B76C9	M7F8	V11GE20VBR3X9
[RZ]158	04528	B76C9	M7F8	V11GE20VBR3X9
[RZ]159	04528	B76C9	M7F8	V11GE20VBR3X9

ALPHA ELEVON SPOBRK BDFLAP

0.00	0.00	25.000	-12.000
5.000	0.00	25.000	-12.000
10.000	0.00	25.000	-12.000
15.000	0.00	25.000	-12.000
20.000	0.00	25.000	-12.000

REFERENCE INFORMATION

SREF	4.4119	SC.FT.
LREF	19.2259	INCHES
BREF	37.9359	INCHES
XMRP	43.5974	INCHES
YMRP	0.0000	INCHES
ZMRP	15.1875	INCHES
SCALE	.0405	SCALE

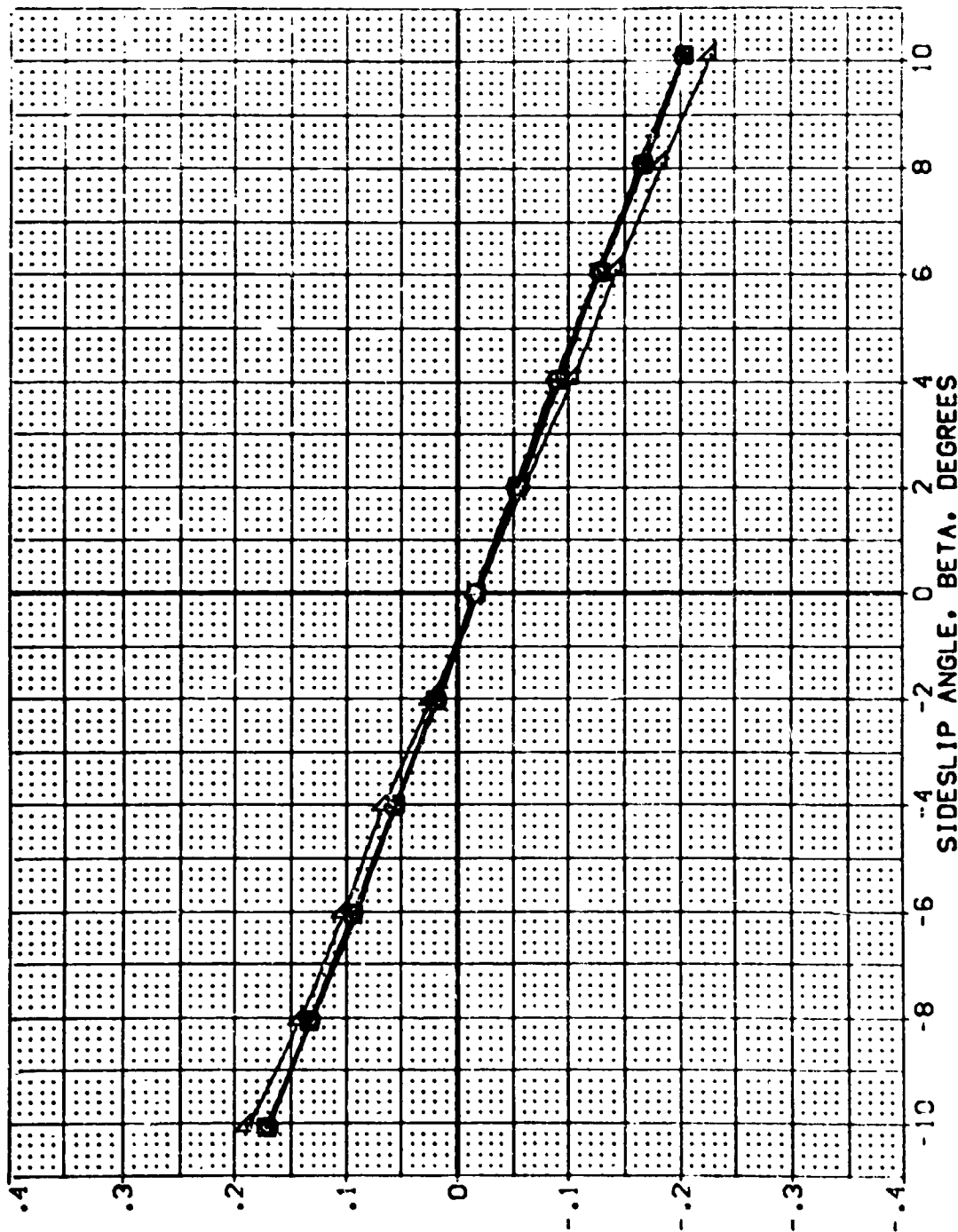


FIG 57 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96 DEG, 25 DEG FLARE

(A)MACH = .26

SYMBOL  
O

SPEED  
25.000

MACH  
ELEVON  
RUDDER

PARAMETRIC VALUES  
.260 BOFLAP -12.000  
.000 AILRON .000  
-7.960

0A62B B26C9 M7F8 W116E28V8R5X9

(C0Z165)

REFERENCE INFORMATION  
REF 4.4119  
REF 19.2799  
REF 37.9329  
XREF 43.5871  
YREF .0000  
ZREF 15.1875  
SCALE .0405

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET. PER DEGREE

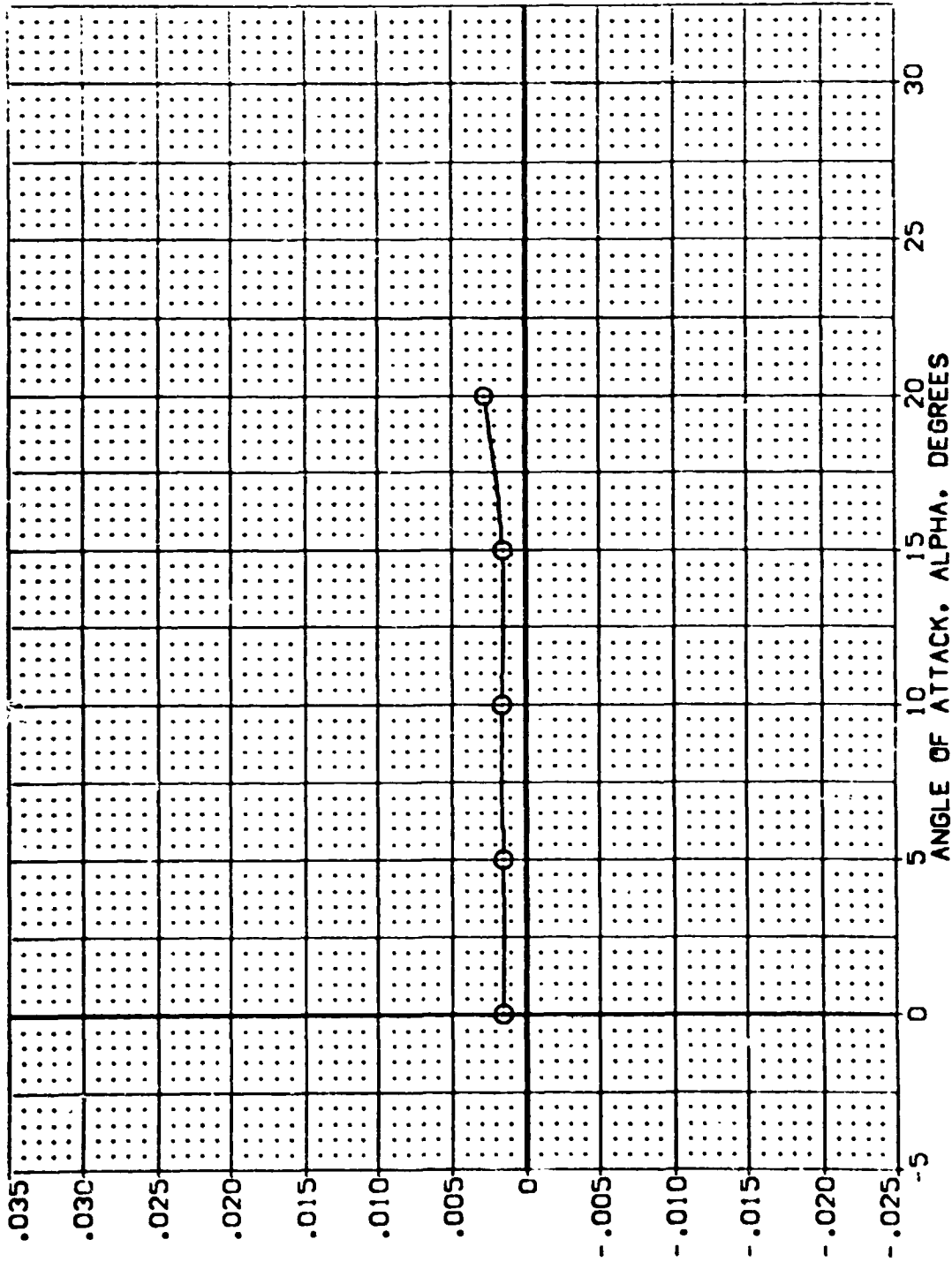


FIG 57 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96 DEG, 25 DEG FLARE

(CDZ165)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

SPOBK  
25.000

WACH  
ELEVON  
RUDDER

PARAMETRIC VALUES  
.260 BDF LAP -12.000  
.000 AILRON .000  
-7.960

REFERENCE INFORMATION  
SREF 4.4119 SC.17  
LREF 19.2259 SC.17  
BREF 37.9358 SC.17  
XREF 43.5874 SC.17  
YREF 15.0000 SC.17  
ZREF 15.1875 SC.17  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

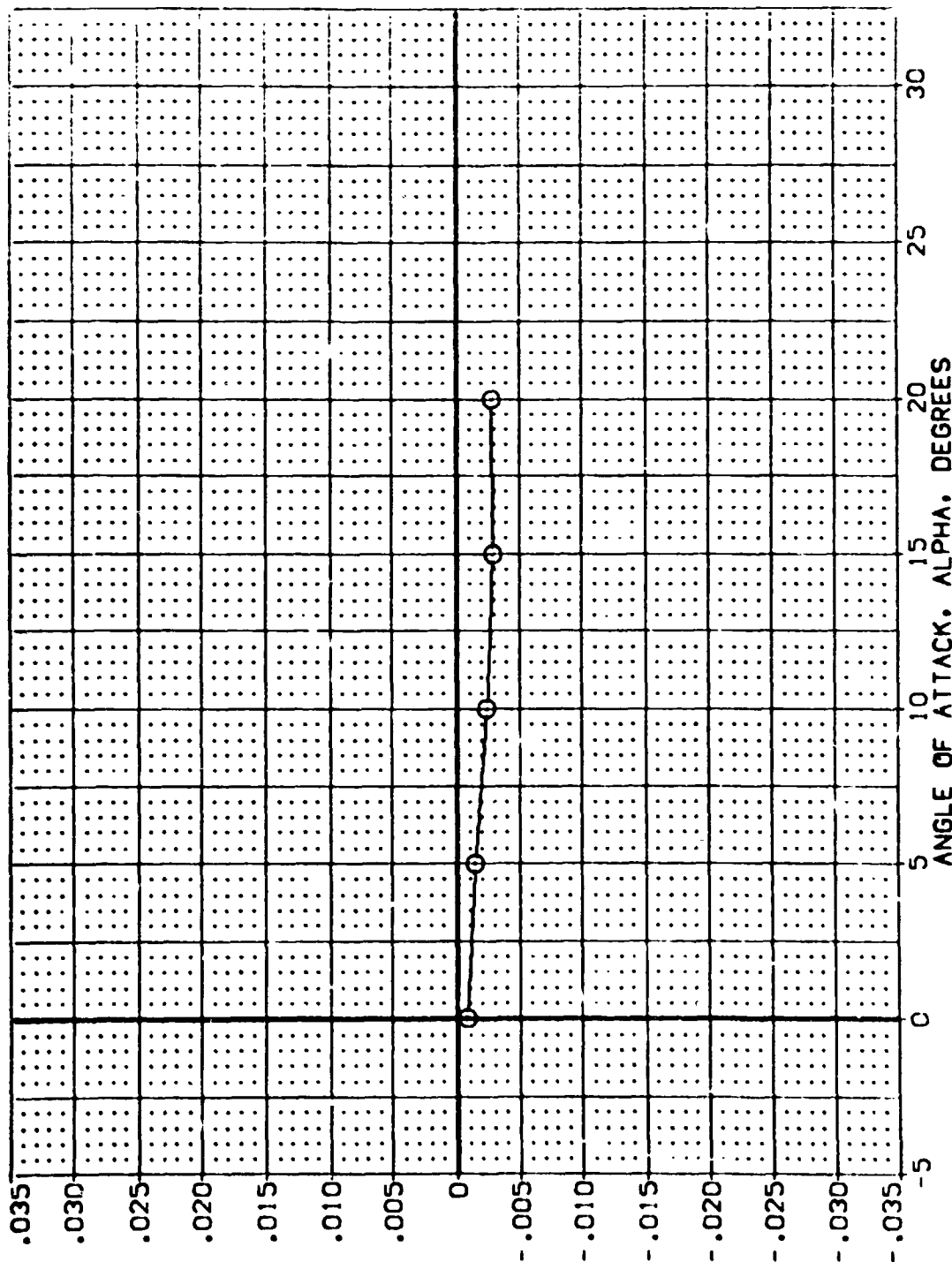


FIG 57 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96 DEG, 25 DEG FLARE



SYMBOL  
O

SPEED  
25.000

MACH  
ELEVON  
RUDDER

PARAMETRIC VALUES  
.260 BDF LAP  
.000 ALL RON  
-7.960

0A628 B26C9 M7F8 W116E28V8R5X9

(CDZ165)

REFERENCE INFORMATION  
SREF 4.419  
LREF 19.2299  
BREF 37.9359  
XMAP 43.5874  
YMAP .0000  
ZMAP 15.1875  
SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

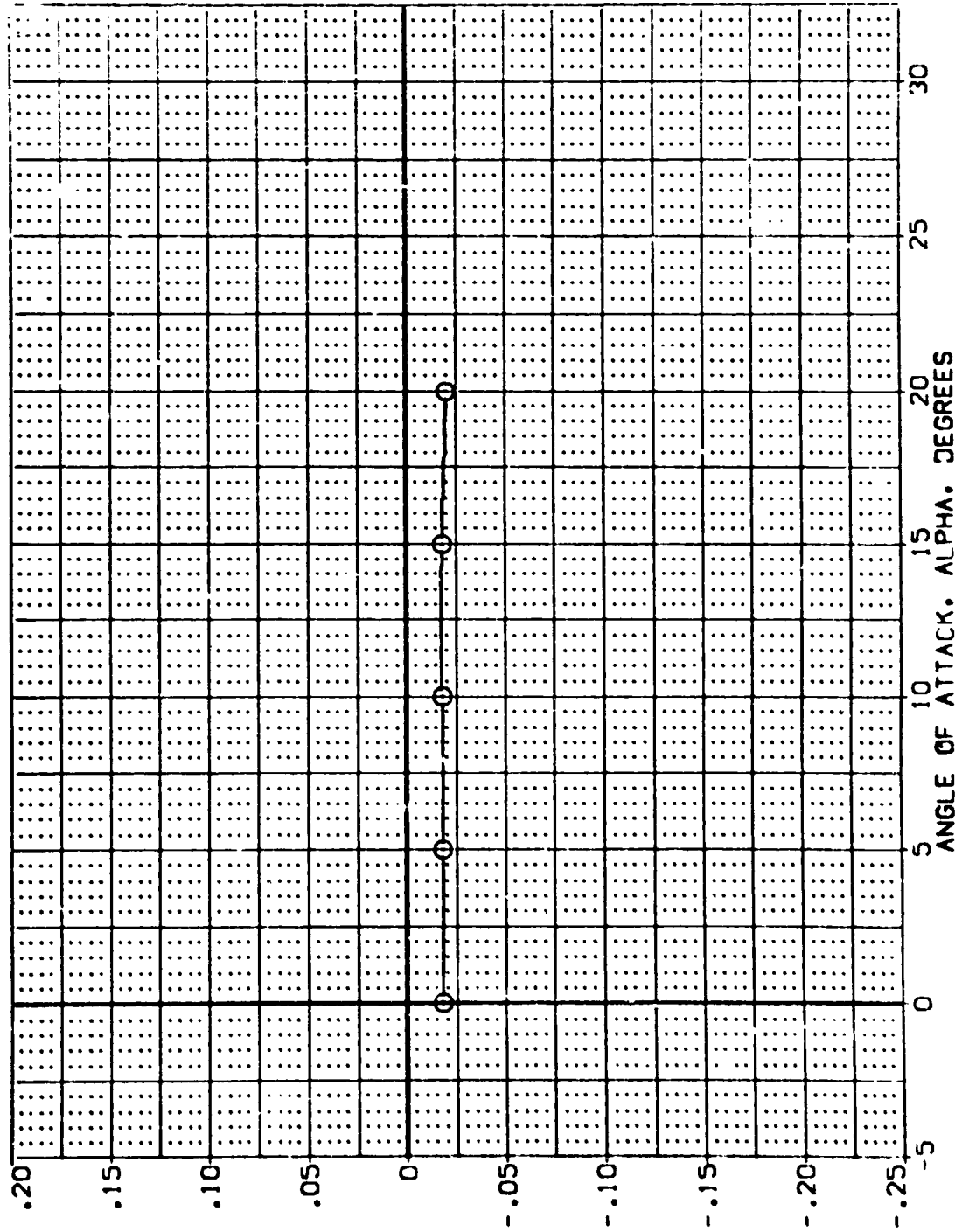


FIG 57 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96 DEG, 25 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOILER	BOFLAP	ALPHA	REFERENCE INFORMATION
(RZ171)	0A628 B76C9 M7F8 V116E28V8F5X9	.000	25.000	-12.000	.000	SREF 4.4119 SC.FT.
(RZ172)	0A628 B76C9 M7F8 V116E28V8F5X9	.000	25.000	-12.000	5.000	LREF 19.2799 INCHES
(RZ173)	0A628 B76C9 M7F8 V116E28V8F5X9	.000	25.000	-12.000	10.000	BREF 37.9359 INCHES
(RZ174)	0A628 B76C9 M7F8 V116E28V8F5X9	.000	25.000	-12.000	15.000	XMRP 43.5971 INCHES
(RZ175)	0A628 B76C9 M7F8 V116E28V8F5X9	.000	25.000	-12.000	20.000	YMRP 15.0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0455

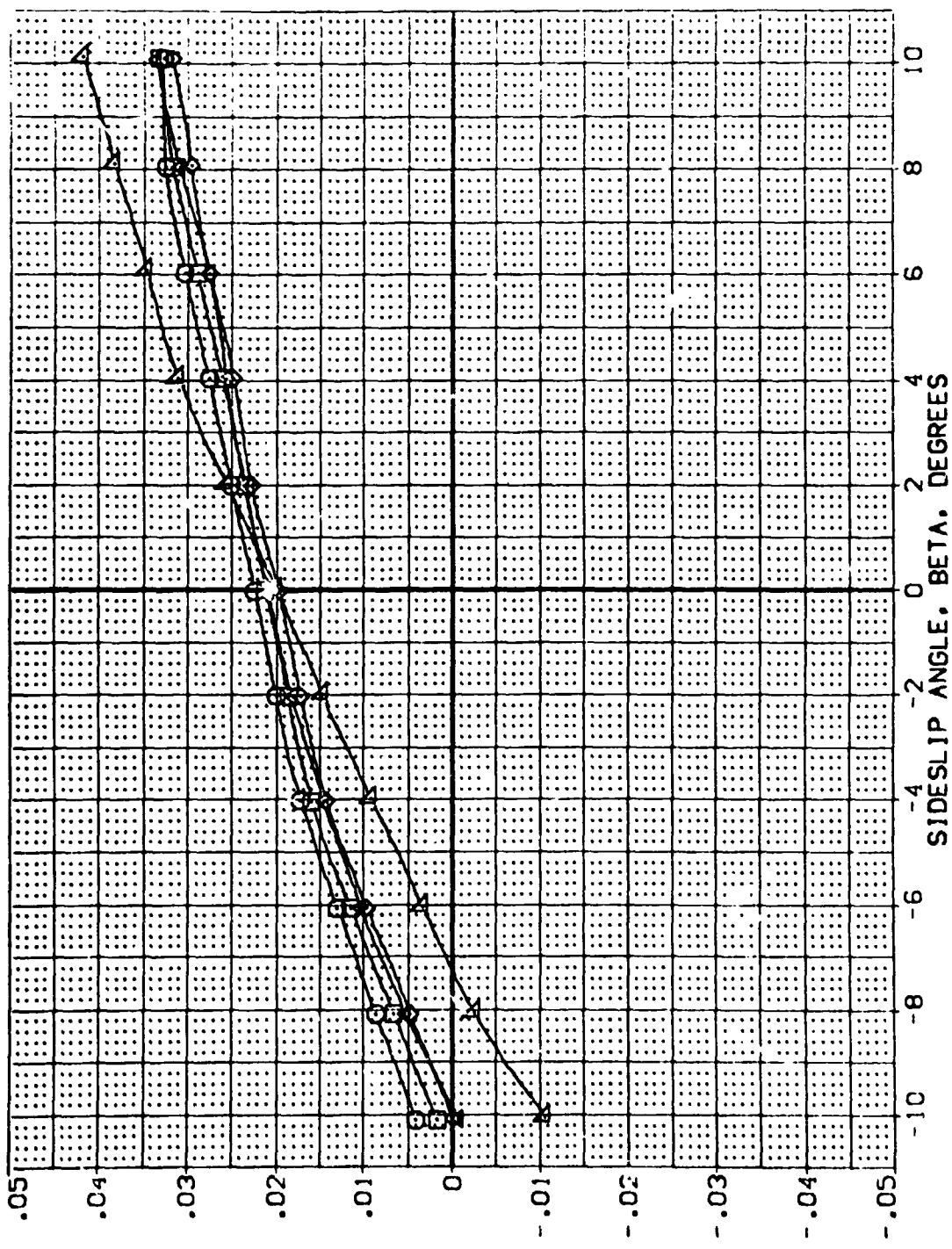


FIG 58 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22 DEG, 25 DEG FLARE  
(A)MACH = .26 PAGE 790

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BDFLAP	ALPHA	REFERENCE INFORMATION
[R02171]	CA628 B26C9 M7F8 V116E28V8P5X9	.000	25.000	-12.000	.000	SREF 4.11 SO.F.7
[R02172]	CA628 B26C9 M7F8 V116E28V8P5X9	.000	25.000	-12.000	5.000	LREF 19.2759 SO.F.8
[R02173]	CA628 B26C9 M7F8 V116E28V8P5X9	.000	25.000	-12.000	10.000	BREF 37.9359 SO.F.9
[R02174]	CA628 B26C9 M7F8 V116E28V8P5X9	.000	25.000	-12.000	15.000	XREF 43.5974 SO.F.10
[R02175]	CA628 B26C9 M7F8 V116E28V8P5X9	.000	25.000	-12.000	20.000	YREF 50.000 SO.F.11
						ZREF 55.000 SO.F.12
						SCALE 15.1875 SO.F.13

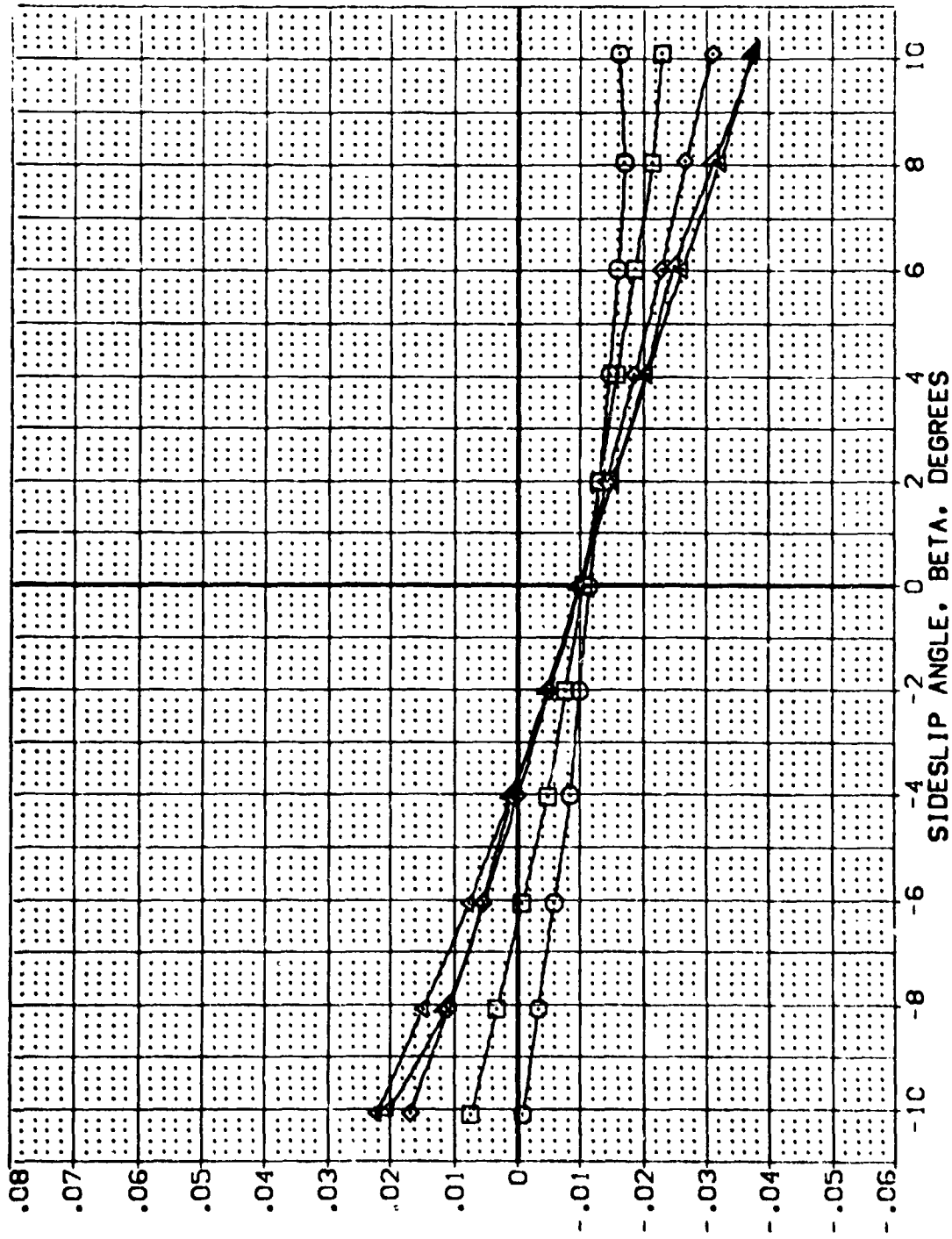


FIG 58 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22 DEG, 25 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BOFLAP	ALPHA	REFERENCE INFORMATION
[R02171]	DA628 B26C9 M7E8 V116E28V85X9	.000	25.000	-12.000	.000	SREF 4.4119 SC.FT.
[R02172]	DA628 B26C9 M7E8 V116E28V85X9	.000	25.000	-12.000	.000	LREF 19.2799 SC.FT.
[R02173]	DA628 B26C9 M7E8 V116E28V85X9	.000	25.000	-12.000	.000	BREF 37.9359 SC.FT.
[R02174]	DA628 B26C9 M7E8 V116E28V85X9	.000	25.000	-12.000	.000	XREF 43.5974 SC.FT.
[R02175]	DA628 B26C9 M7E8 V116E28V85X9	.000	25.000	-12.000	.000	YREF .000 SC.FT.
					20.000	ZREF 15.1875 SC.FT.
						SCALE .0105 SCALE

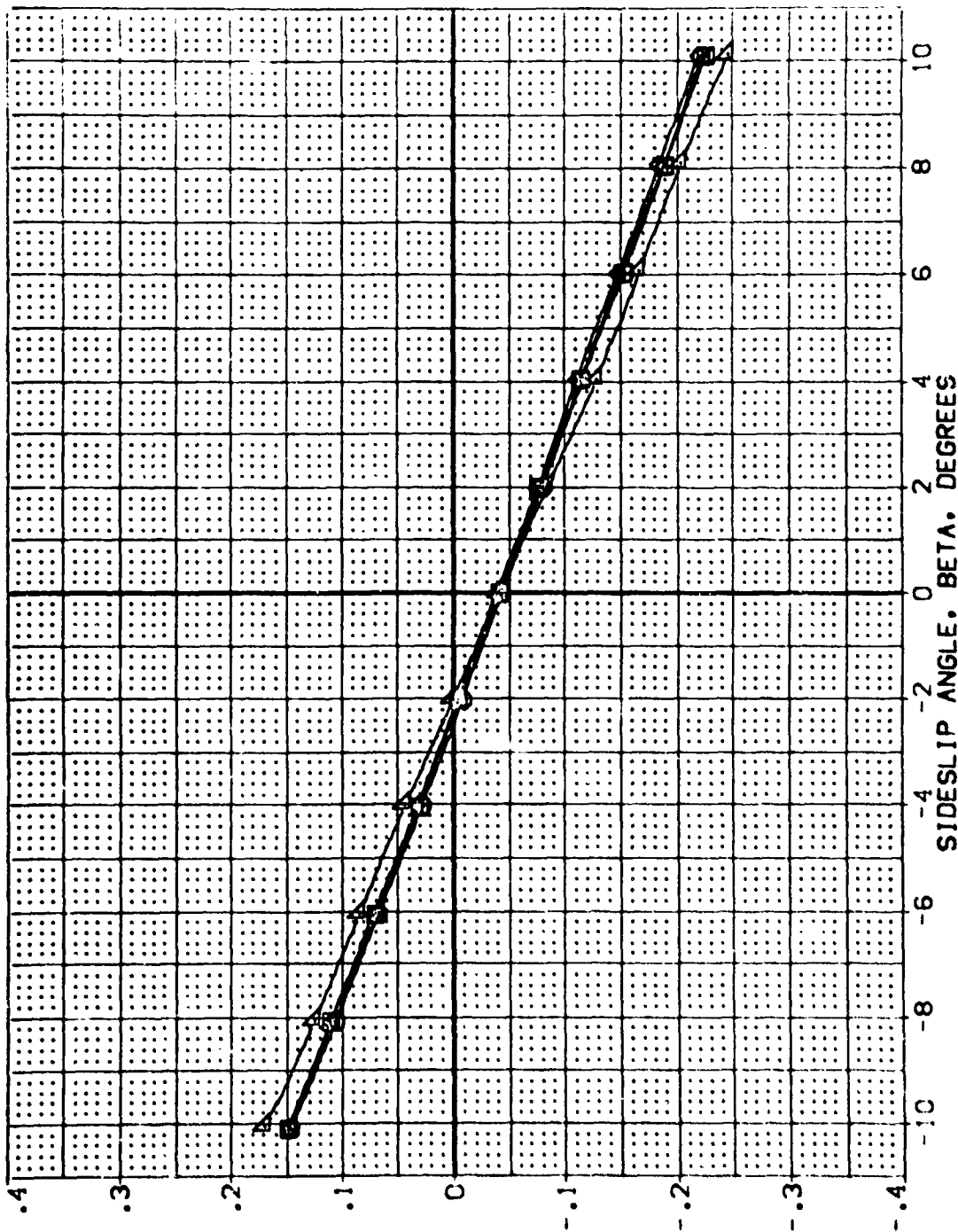


FIG 58 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22 DEG, 25 DEG FLARE

(A)MACH = .26

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET. PER DEGREE

SYMBOL  
O

SPDRBK  
25.000

MACH  
ELEVON  
RUDDER

PARAMETRIC VALUES

.260 BOFLAP -12.000  
.000 AILRON .000  
-16.220

0A62B B26C9 M7F8 W116E28V8R5X9

(CDZ171)

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.7299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5874 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

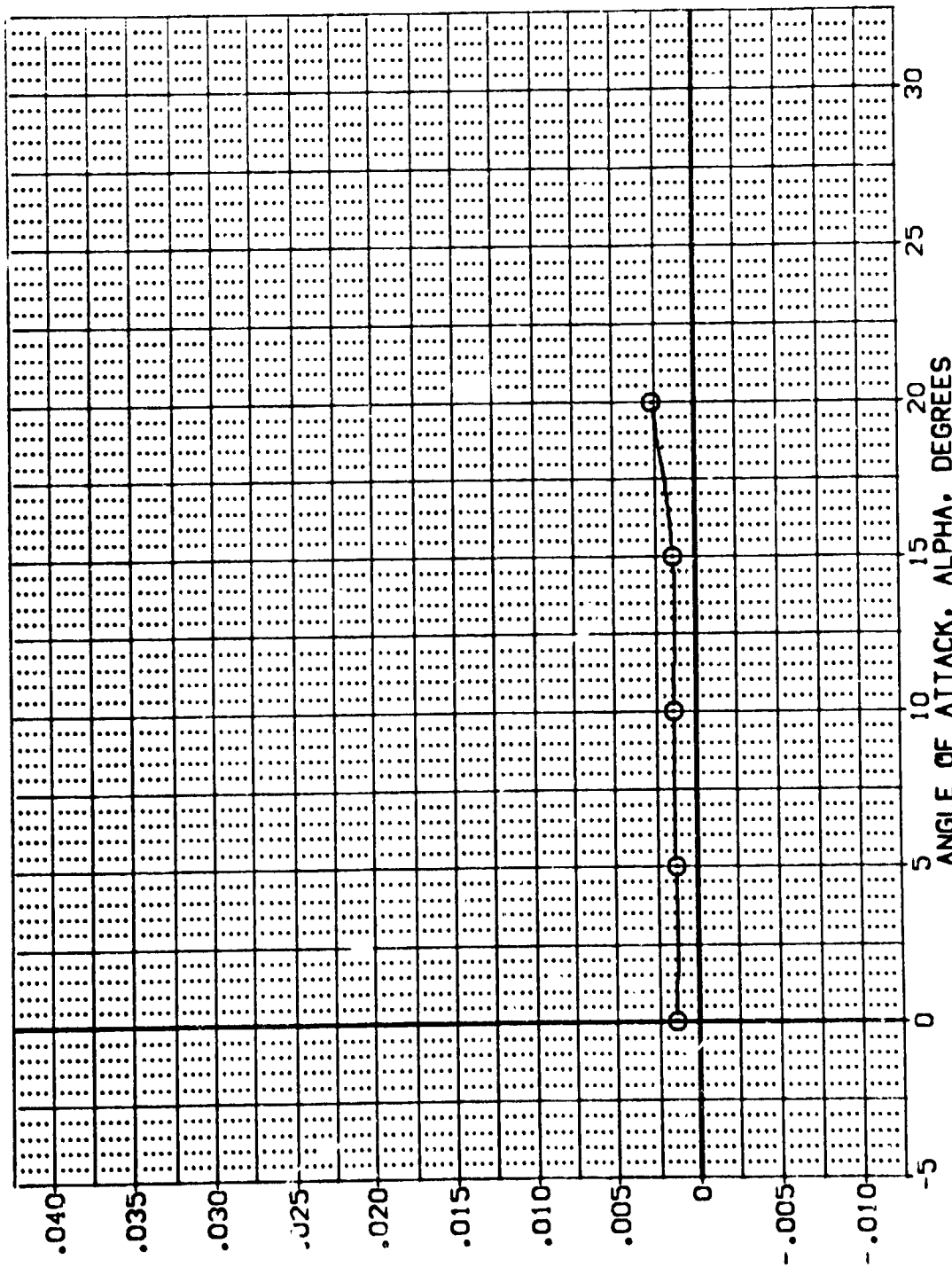


FIG 58 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22 DEG, 25 DEG FLARE

(CDZ171)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

SPEED  
25.000

MACH  
ELEVON  
RUDDER

PARAMETRIC VALUES  
.260 BOFLAP  
.000 AILRON  
-16.220

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9355 INCHES  
XMRP 43.5874 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

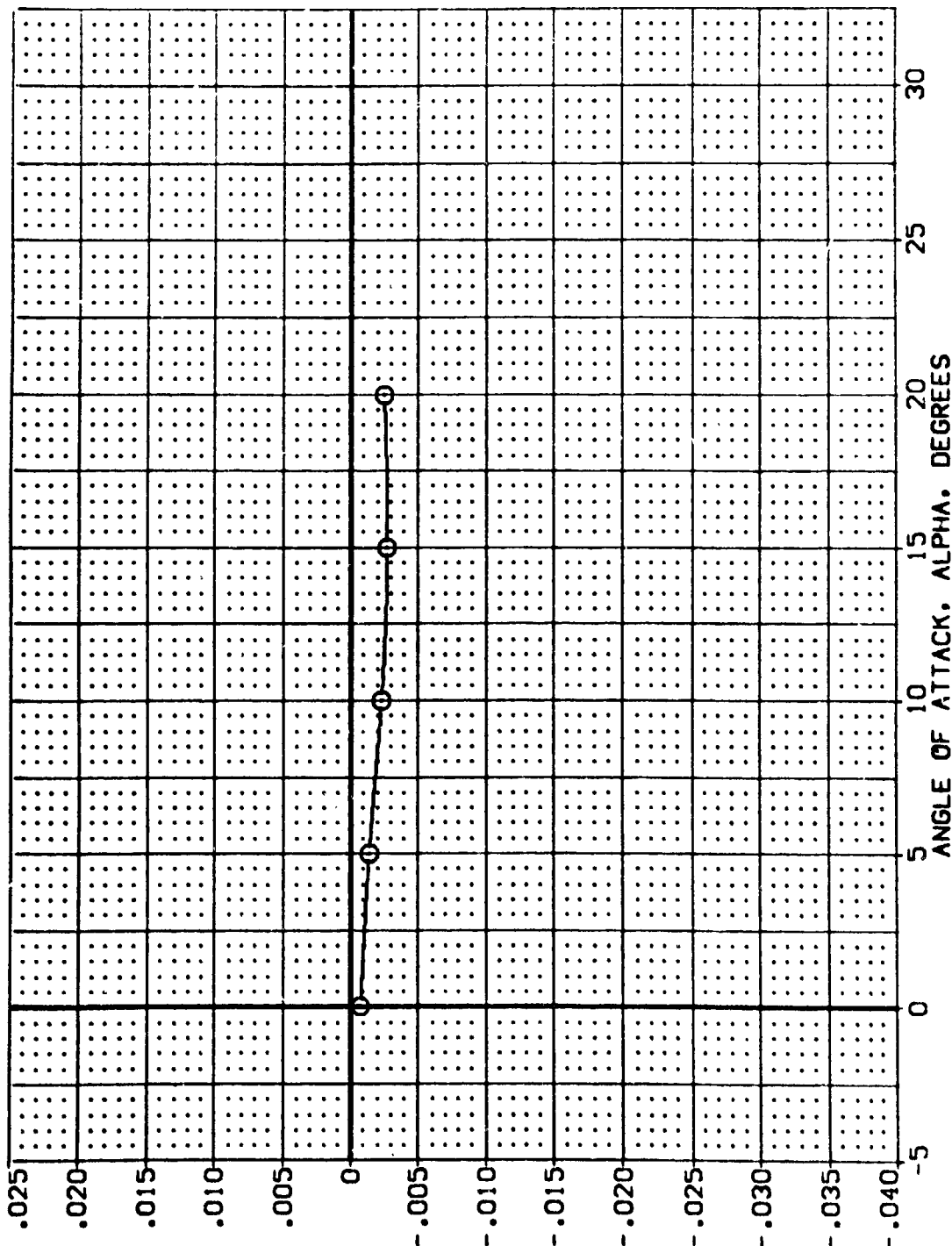


FIG 58 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22 DEG, 25 DEG FLARE

SYMBOL  
O

SPDRK  
25.000

MACH  
ELEVON  
RUDDER

PARAMETRIC VALUES  
.260 BDF LAP  
.000 AILRON  
-16.220

-12.000  
.000

0A62B B26C9 M7F8 W116E28V8R5X9

(CDZ171)

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

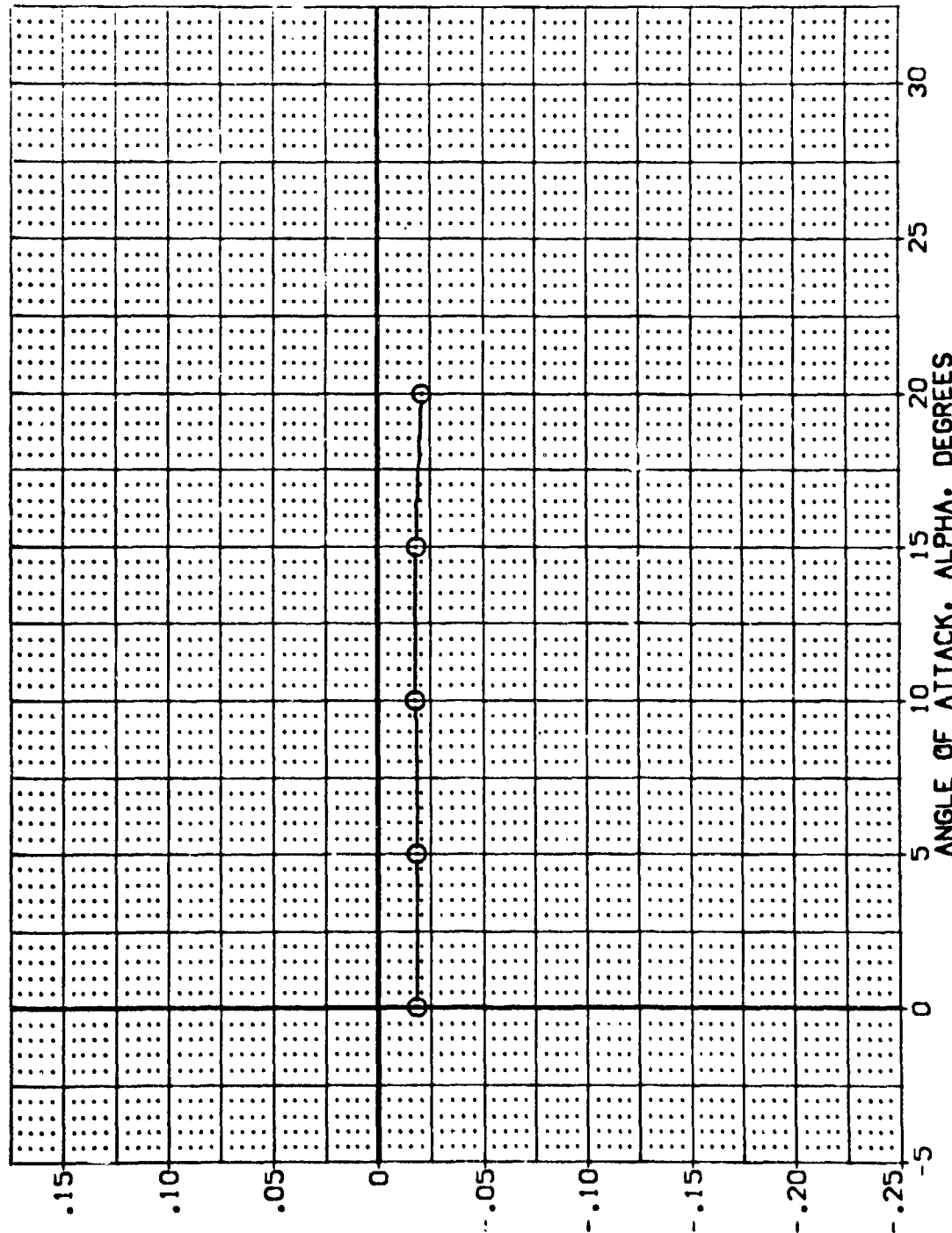


FIG 58 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22 DEG, 25 DEG FLARE

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R02176) 04528 B25C9 M78 V116E28V8P54S  
 (R02300) 04528 B25C9 M78 V116E28V8P54S

ELEVON SPOBRK BOLFAP RUDDER  
 .000 40.000 -12.000 -7.960  
 .000 40.000 -12.000 .000

REFERENCE INFORMATION  
 SREF 4.4119 SC.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5574 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

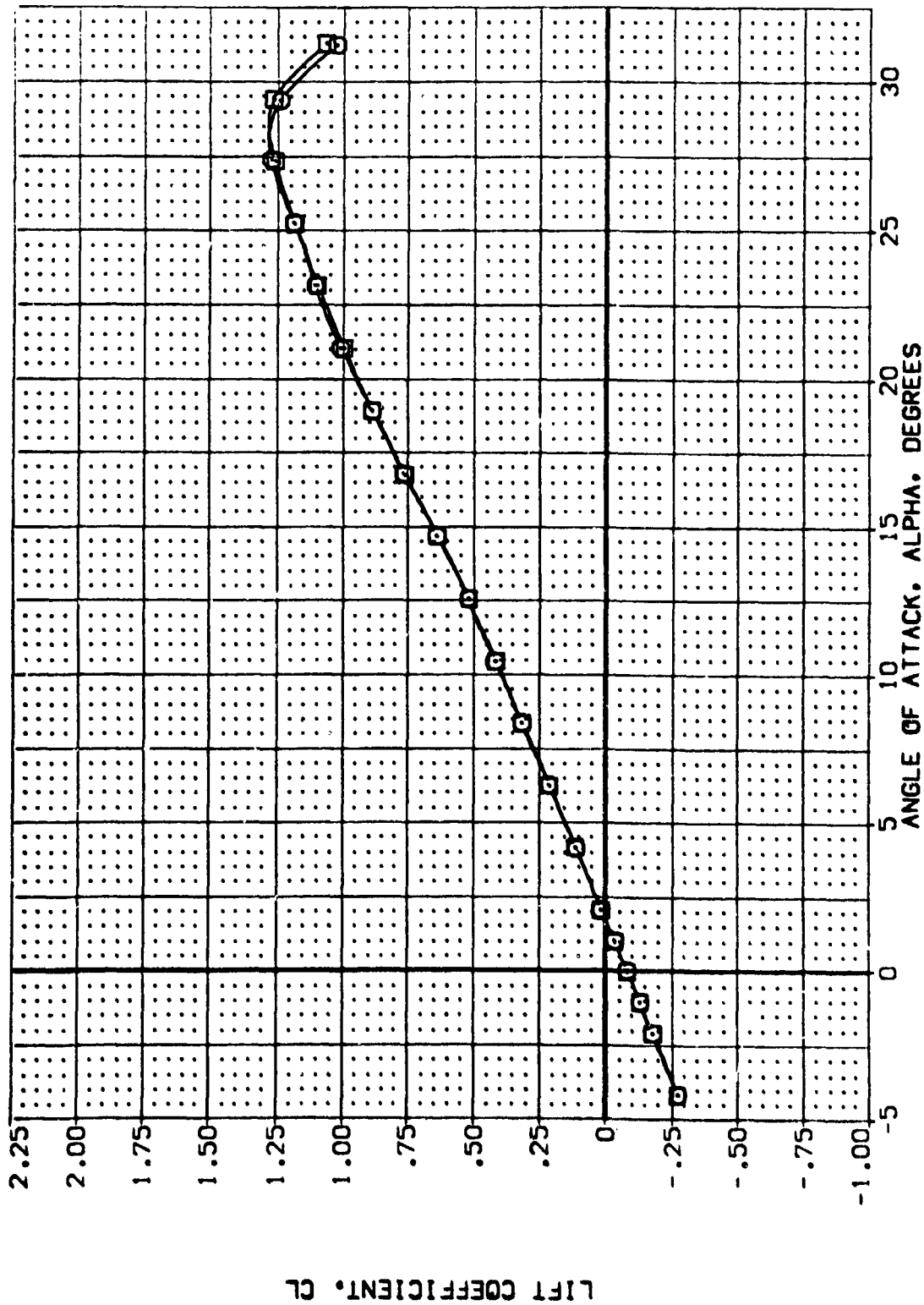


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(A)MACH = .26



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(R02175) 04528 B26C3 M7F8 V116E28V85X9  
 (R02330) 04528 B76C3 M7F8 V116E28V85X9

ELEVON SPOON BDFLAP RUDDER

.000 40.000 -12.000 -7.960  
 .000 40.000 -12.000 .000

REFERENCE INFORMATION

SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.0359 INCHES  
 XMRP 43.5574 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405 SCALE

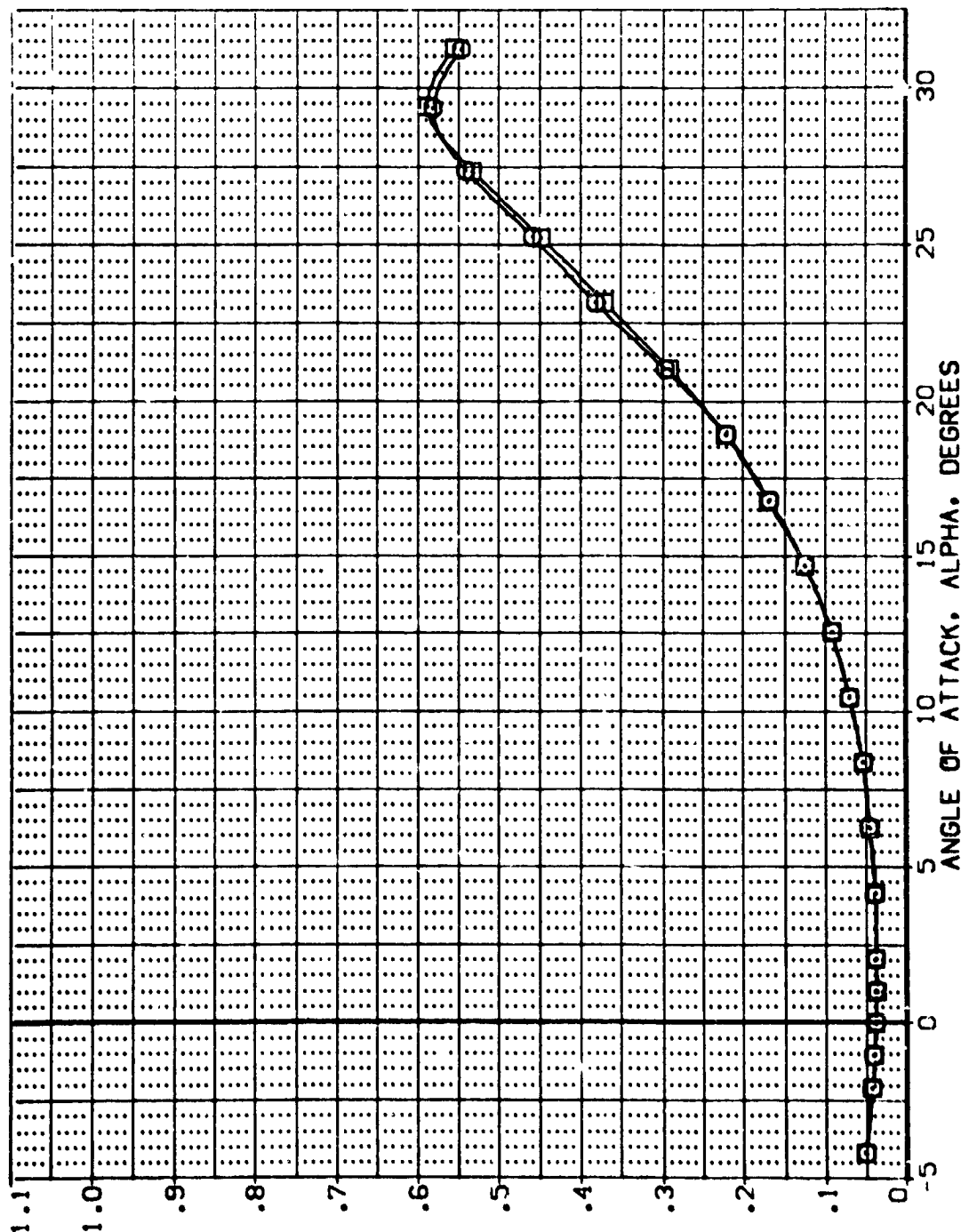


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL: (RD2176) (RD2300)

CONFIGURATION DESCRIPTION: 0A528 B26C9 M7F8 V116E28V85X9  
0A628 B26C9 M7F8 V116E28V85X9

ELEVON: .000 .000

SPOILER: 40.000 40.000

BOFLAP: -12.000 -12.000

RUDDER: -7.960 .000

REFERENCE INFORMATION:

SREF	4.4119	SO.FT
LREF	19.2299	INCHES
BREF	37.9359	INCHES
XMRP	43.5974	INCHES
YMRP	.0000	INCHES
ZMRP	15.1875	INCHES
SCALE	.0465	SCALE

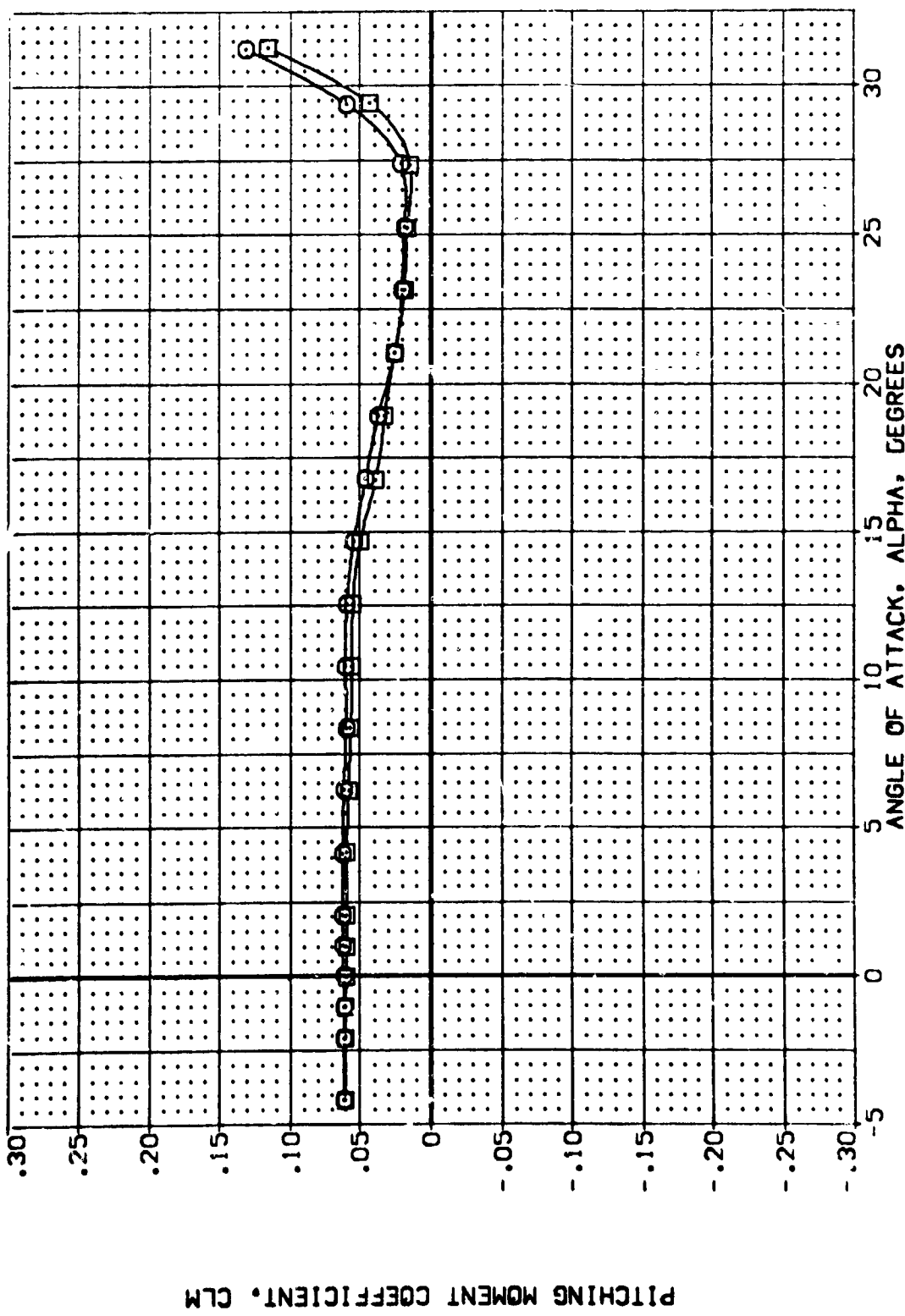


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL: (R02176) (R02330) CONFIGURATION DESCRIPTION: QAG28 B26C9 M7F8 V11GE28V85K9 QAG28 B26C9 M7F8 V11GE28V85K9

ELEVON: .000 SPDRK: 40.000 40.000 BOFLAP: -7.950 -12.000 RUDDER: -7.950 .000

REFERENCE INFORMATION: SREF: 4.4119 SC.F: NC+S LREF: 19.2299 NC+S BREF: 37.9359 NC+S XREF: 43.5874 NC+S YREF: .0000 NC+S ZREF: 15.1875 NC+S SCALE: .0405

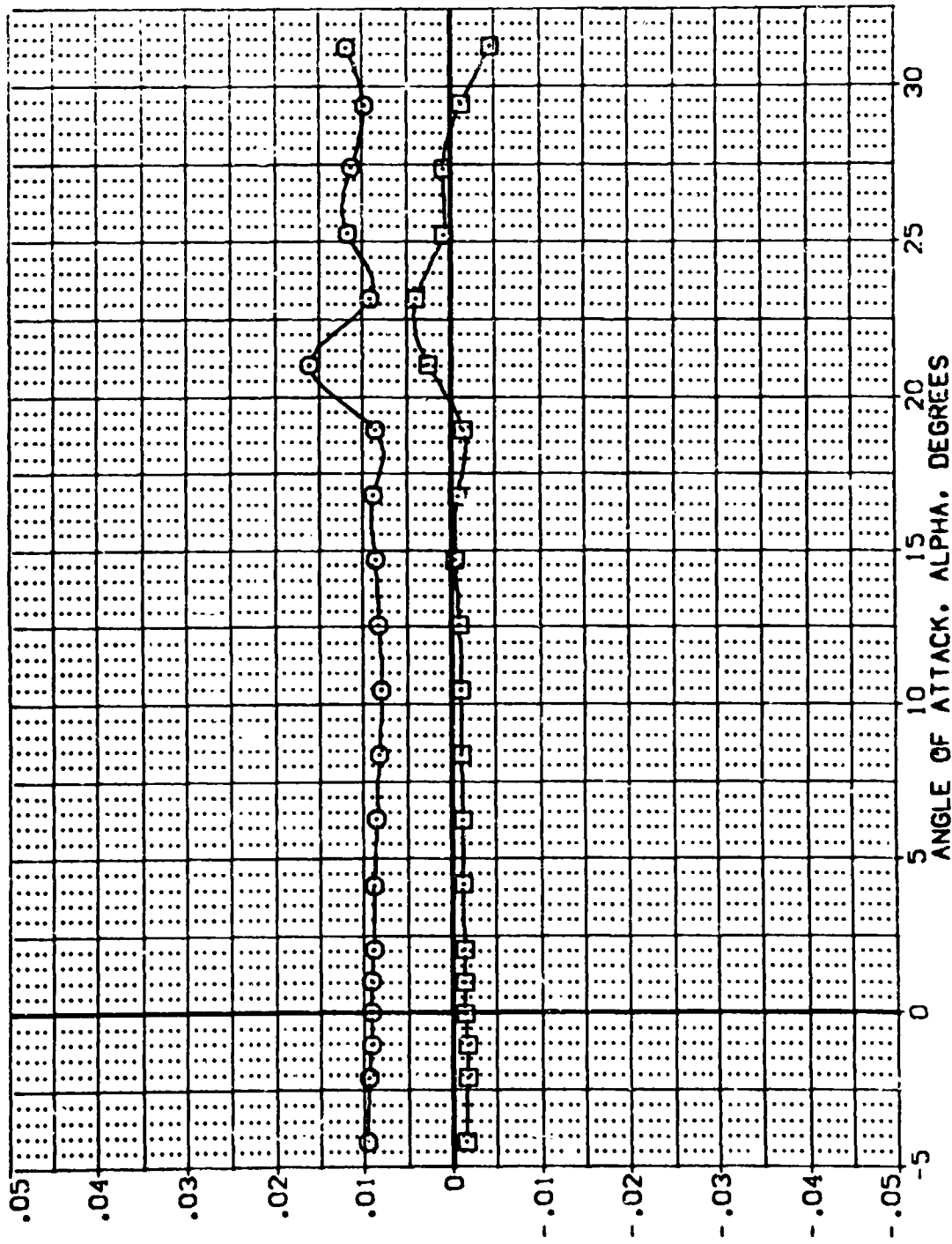


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL: 04528 826C9 M7F8 V11E28V85X9  
 (R02175) 04528 826C9 M7F8 V11E28V85X9  
 (R02330)

ELEVON: .000  
 SPOBRK: 40.000  
 BDFLAP: -12.000  
 RUDDER: -7.850  
 REFERENCE INFORMATION:  
 SREF: 4.4119 SC.FT  
 LREF: 19.2299 NC-FS  
 BREF: 37.9359 NC-FS  
 XMRP: 43.5974 NC-FS  
 YMRP: .0000 NC-FS  
 ZMRP: 15.1875 NC-FS  
 SCALE: .0405

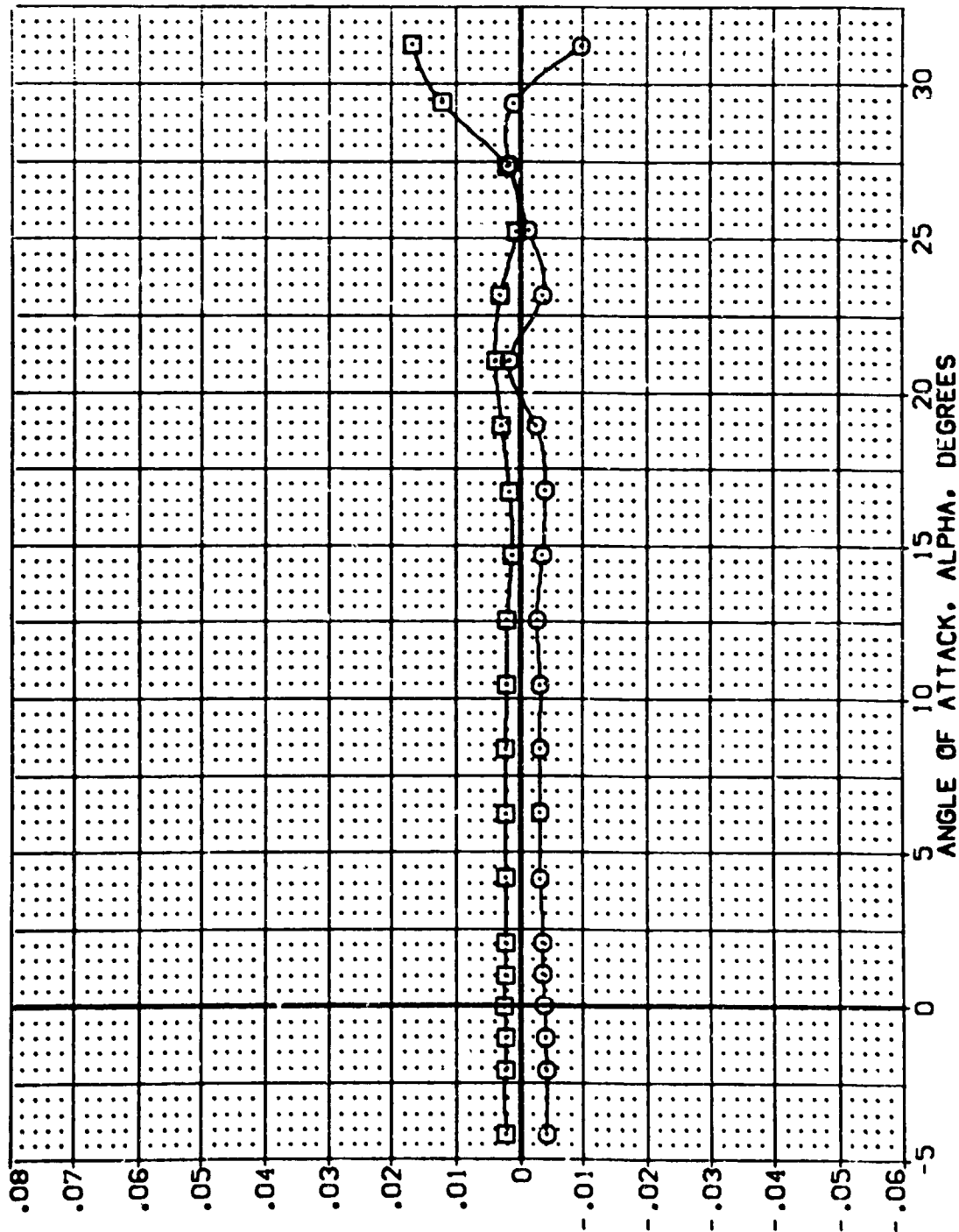


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL: (R02176) (R02330) □

CONFIGURATION DESCRIPTION: QAS28 B26C9 M7F8 V116E28V8F5X9  
QAS28 B26C9 M7F8 V116E28V8F5X9

ELEVON: .000 .000

SPOON: 40.000 40.000

BDF LAP: -12.000 -12.000

RUDDER: -7.950 .000

REFERENCE INFORMATION: SREF 4.4119 50. FT  
LREF 19.2799 INC-4'S  
BREF 37.9359 INC-4'S  
XMRP 43.5974 INC-4'S  
YMRP .0000 INC-4'S  
ZMRP 15.1875 INC-4'S  
SCALE .0405 SCALE

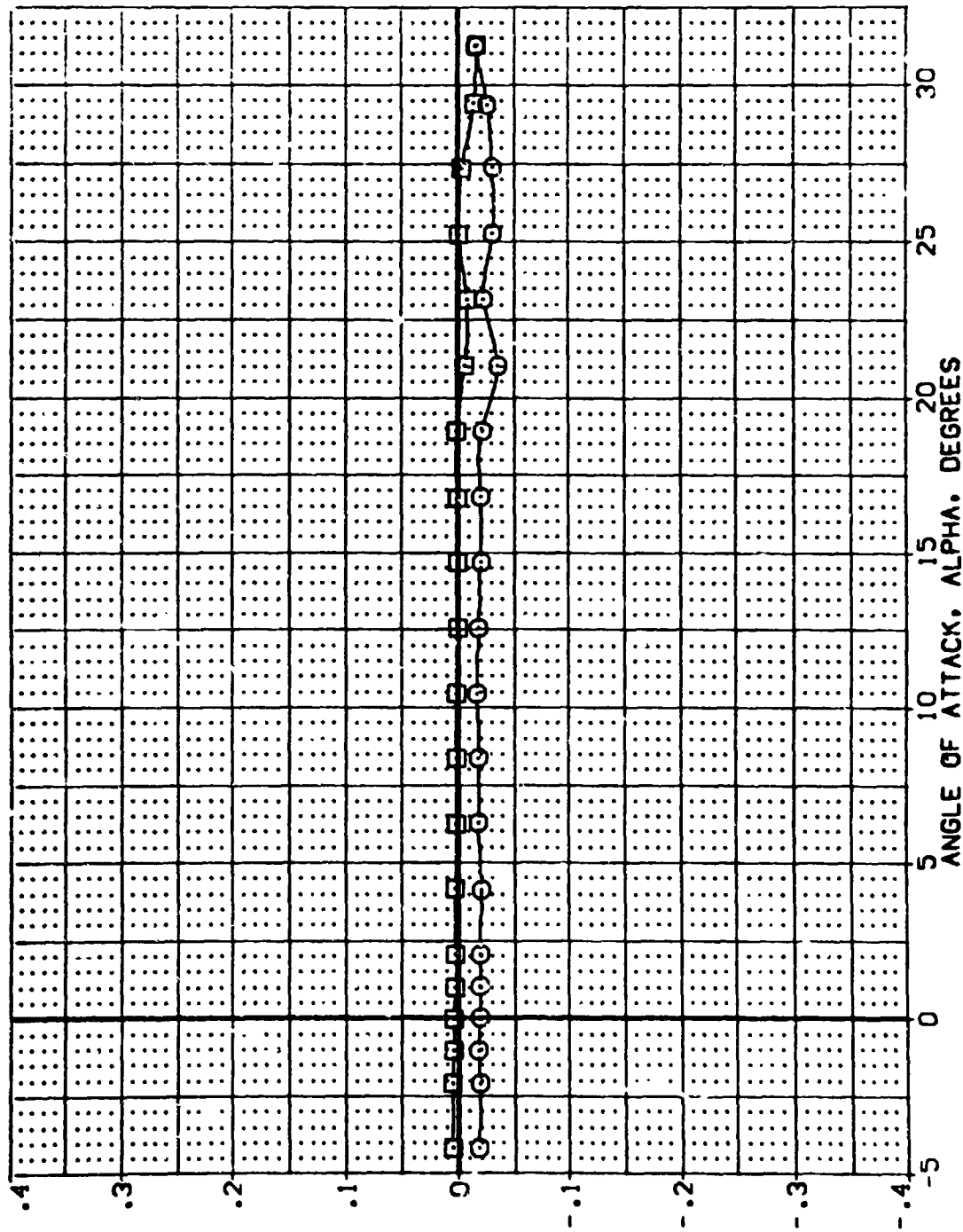


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(MACH = .26

(20Z176)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	RUDDER	SRF	REFERENCE INFORMATION
0	.000		.260 DELVON	RUDDER	20Z330	.000	SRF	SO.FT.
		BOFLAP	-12.000 AILRON				REF	INCHES
		SPOBRK	40.000 BETA				REF	INCHES
							REF	INCHES
							YMRP	INCHES
							ZMRP	INCHES
							SCALE	SCALE
								4.4119
								19.2299
								37.9359
								43.5574
								.0000
								15.1875
								.0405

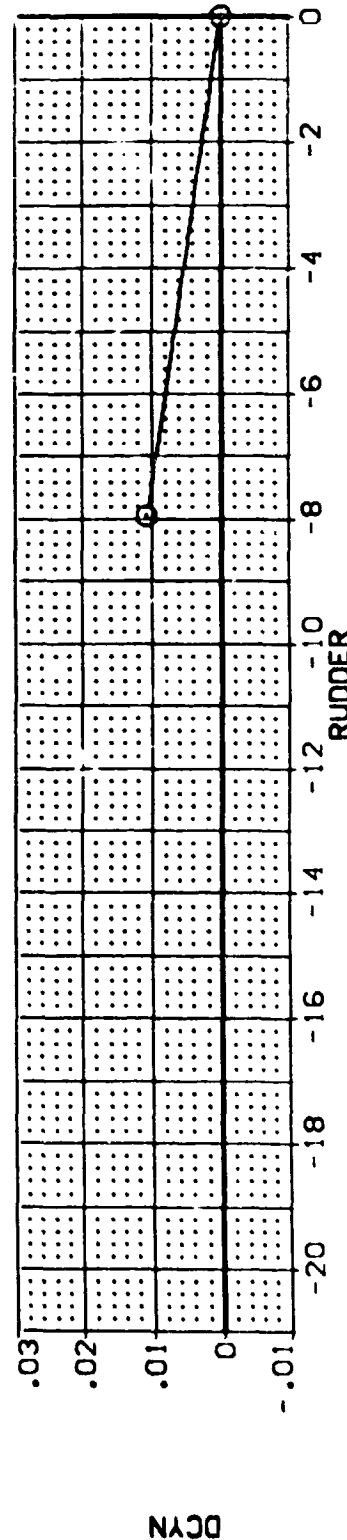
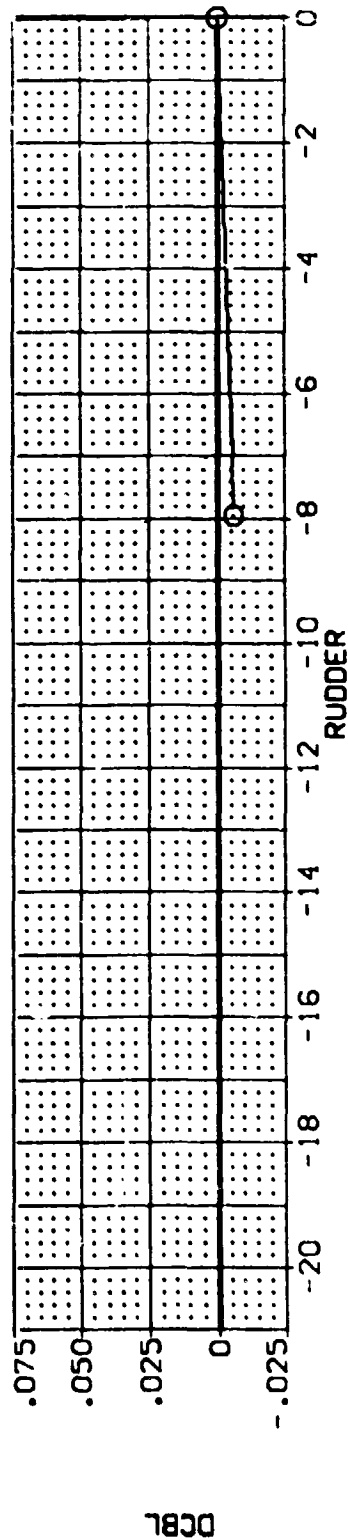
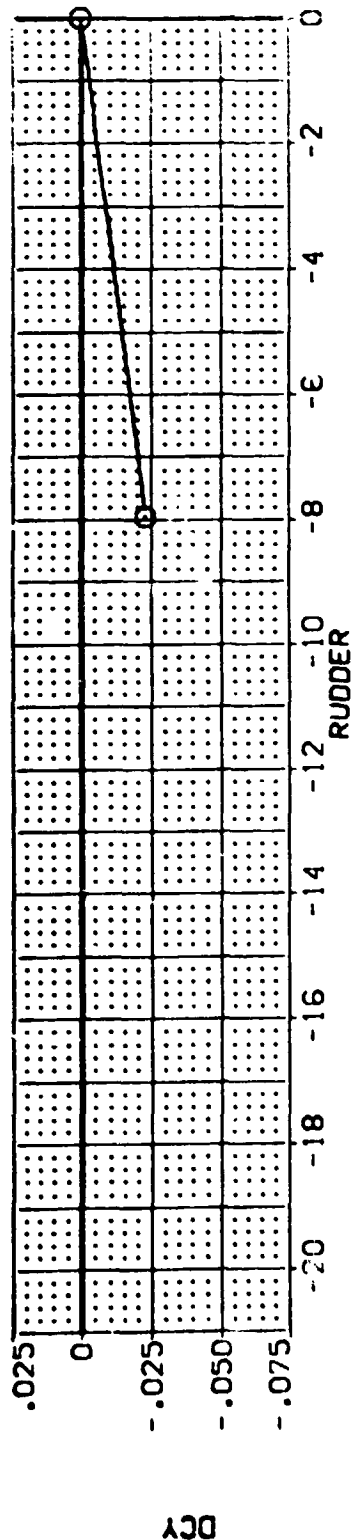
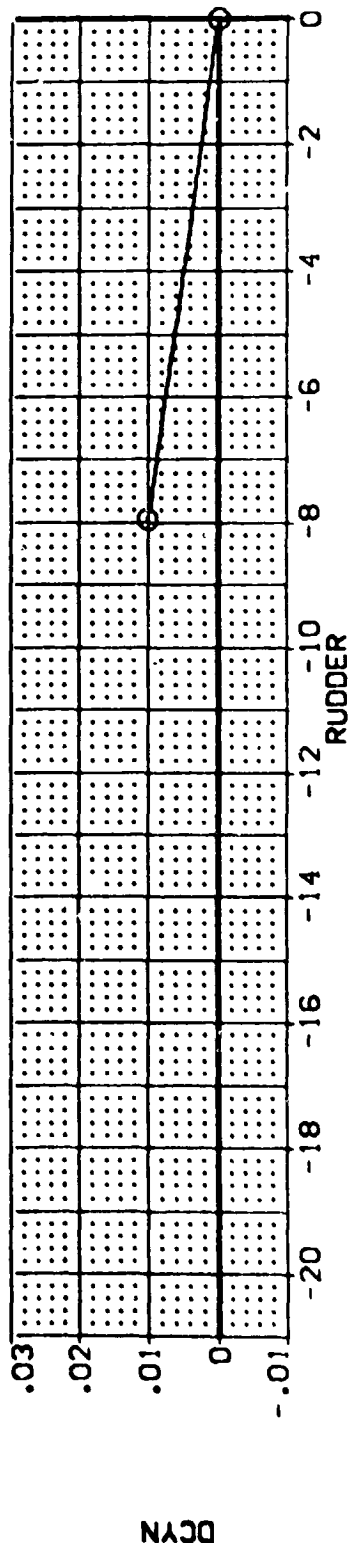


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

Q



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z176)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0	10.000	BOFLAP	.260	DELTA	.000	RUDDER	SREF	SO.FT.
		SPOBRK	-12.000	ATLRON	.000	20Z176	REF	INCHES
			40.000	BETA	.000		BREF	INCHES
					.000		YMRP	INCHES
					.000		ZMRP	INCHES
					.000		SCALE	SCALE
					.0405			

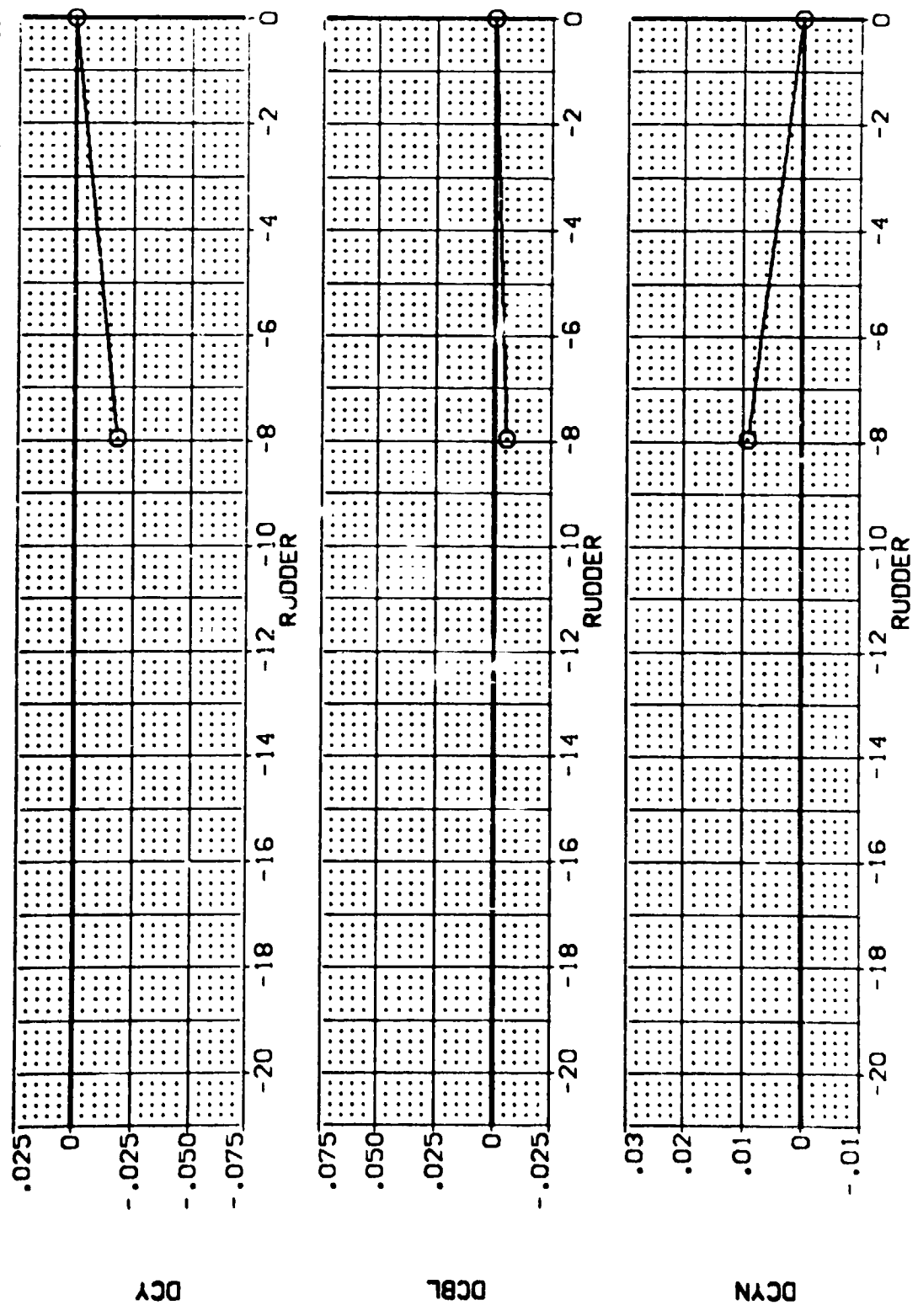


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE





SYMBOL  
○

ALPHA  
20.000

MACH  
80FLAP  
SP08RK

PARAMETRIC VALUES  
.260 DELVON  
-12.000 ALLRON  
40.000 BETA

.000 DATASET  
.000 20Z176  
.000

DATA SOURCE  
RUDDER  
-7.960

DATASET  
20Z330

RJDDER  
.000

REFERENCE INFORMATION  
SREF 4.4119 SC.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP 15.1875 INCHES  
ZMRP .0405 INCHES  
SCALE

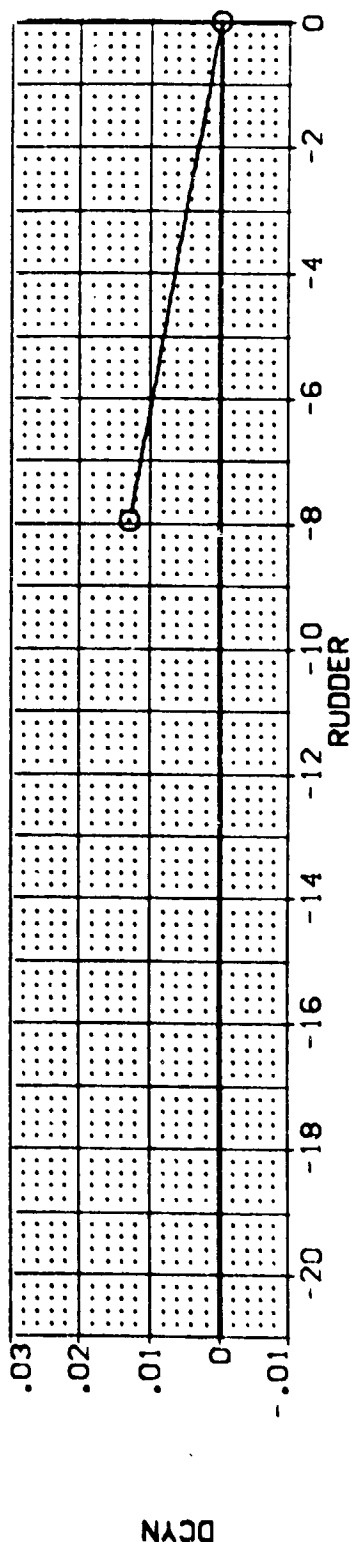
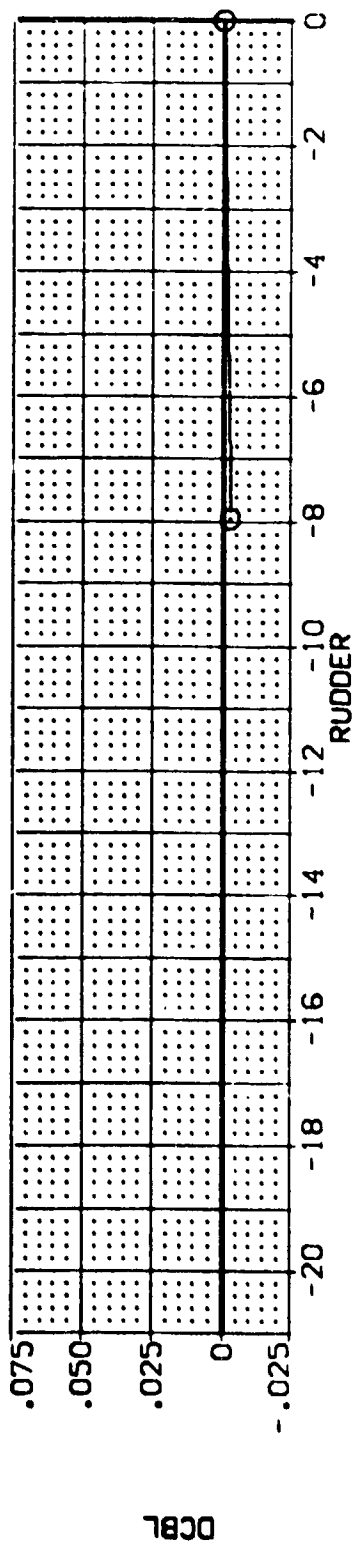
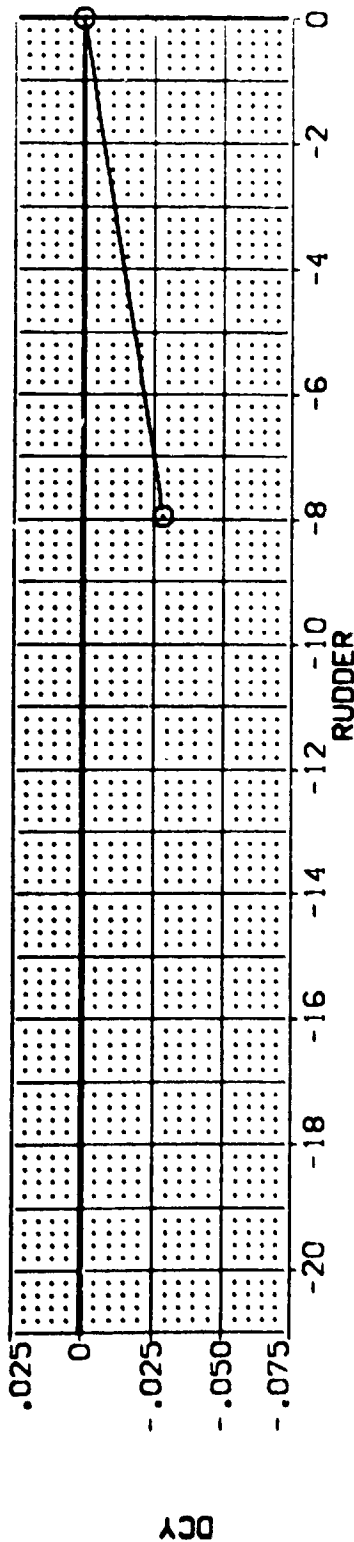


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

0A62B 826C9 M7F8 W116E28V8R5X9 (20Z176)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	DELTA	DELTA	DELTA	RUDDER	RUDDER	RUDDER	RUDDER	SRP	SRP	SRP	SRP
0	25.000	80FLAP	-12.000	AILRON	20Z176	-7.960	20Z330	.000	.000	19.2799	19.2799	INCHES	INCHES
		SPDRK	40.000	BETA	.000					43.5974	43.5974	INCHES	INCHES
										.0000	.0000	INCHES	INCHES
										15.1875	15.1875	INCHES	INCHES
										SCALE	SCALE	SCALE	SCALE

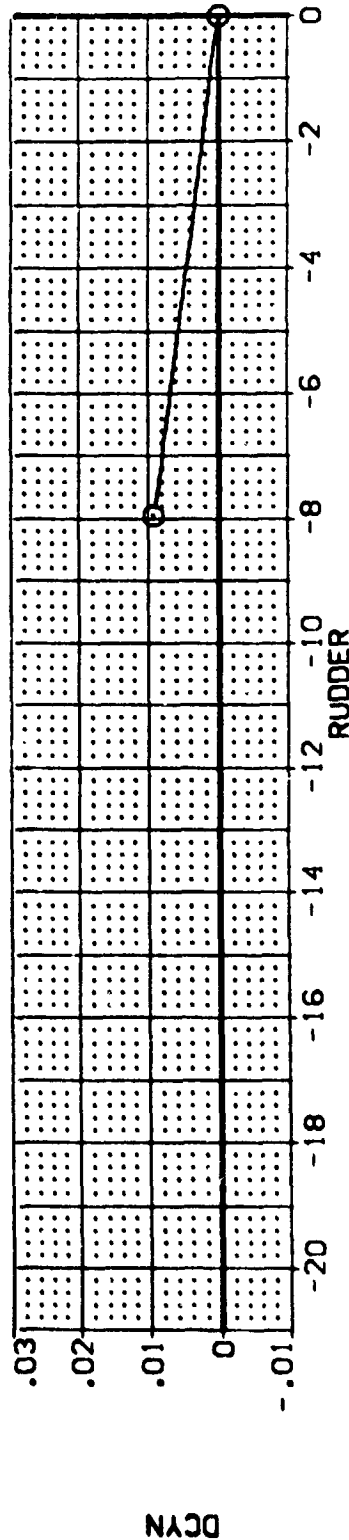
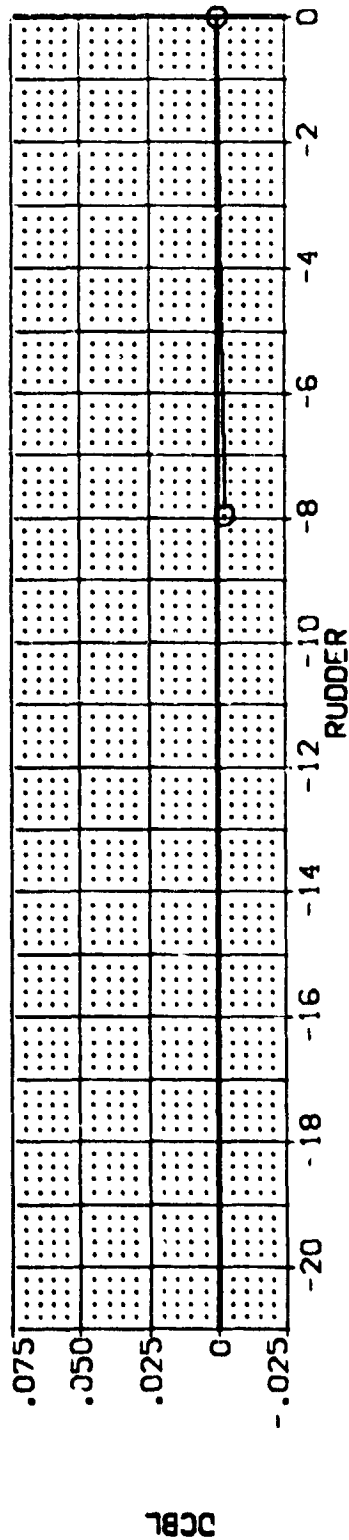
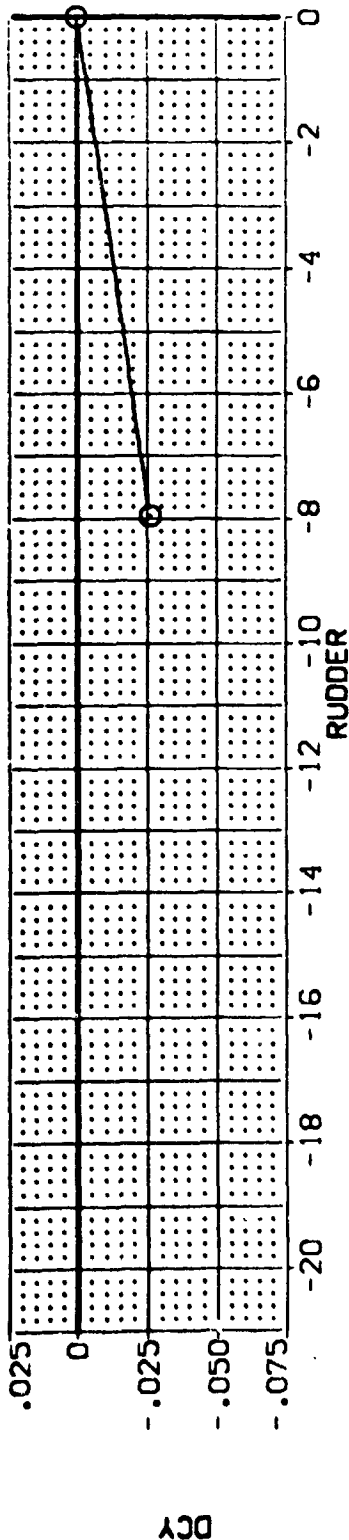


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z176)

SYMBOL	ALPHA	WACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
0	30.000	BOFLAP	.280	DELTON	.000	DATASET	RUDDER	SREF	50.FT.	
		SPDBRK	-12.000	AIRLON	.000	20Z176	.000	LREF	INCHES	
			40.000	BETA	.000			BREF	INCHES	
								XMRP	INCHES	
								YMRP	INCHES	
								ZMRP	INCHES	
								SCALE	SCALE	
									.0405	

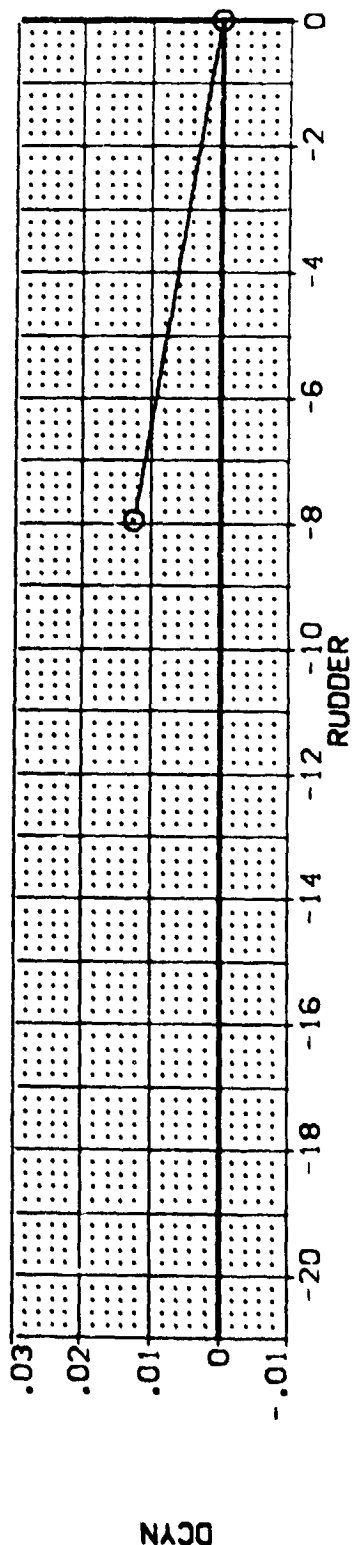
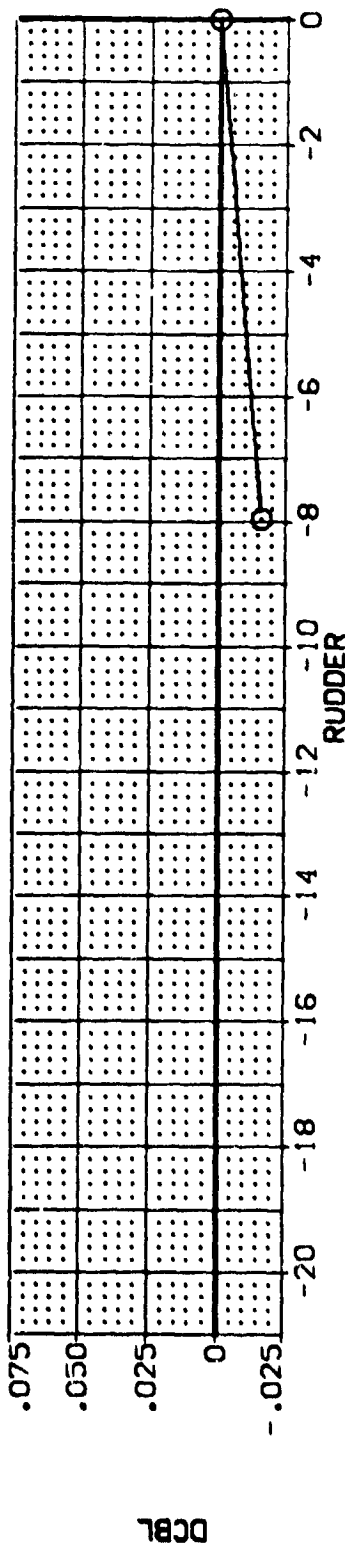
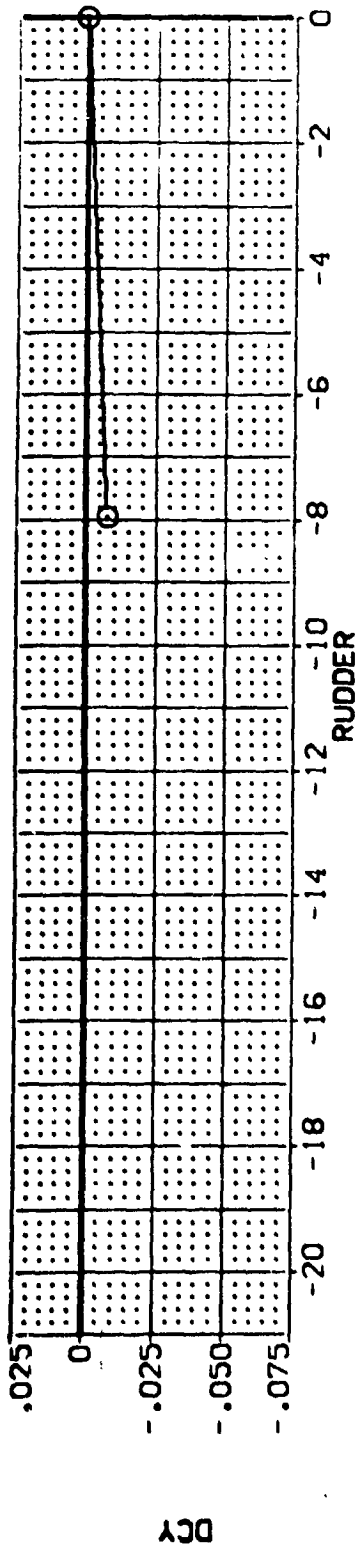


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(20Z176)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL ALPHA .000 MACH .000 DELTA .000 DATASET RUDDER .000 REFERENCE INFORMATION  
O .000 BOFLAP -12.000 AILRON 40.000 BETA .000 DATASET RUDDER .000 REFERENCE INFORMATION  
SPDRN 40.000 BETA .000 DATASET RUDDER .000 REFERENCE INFORMATION  
SOFT 4.4119  
INCHES 19.2299  
INCHES 37.9359  
INCHES 43.5574  
INCHES 15.0000  
INCHES 15.1875  
SCALE .0405

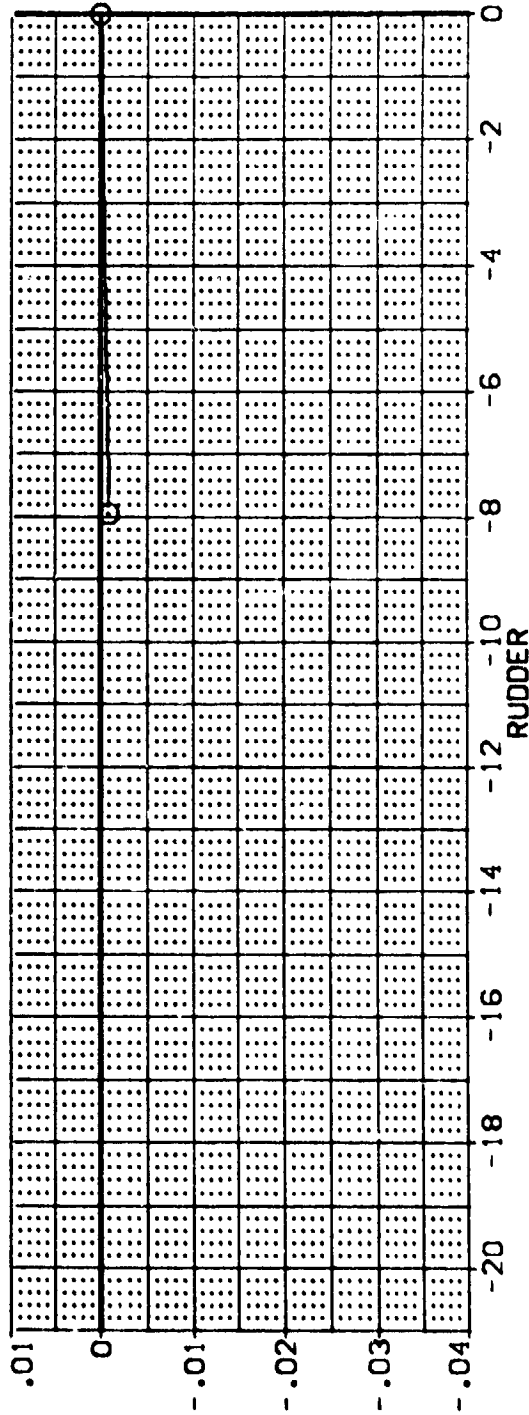
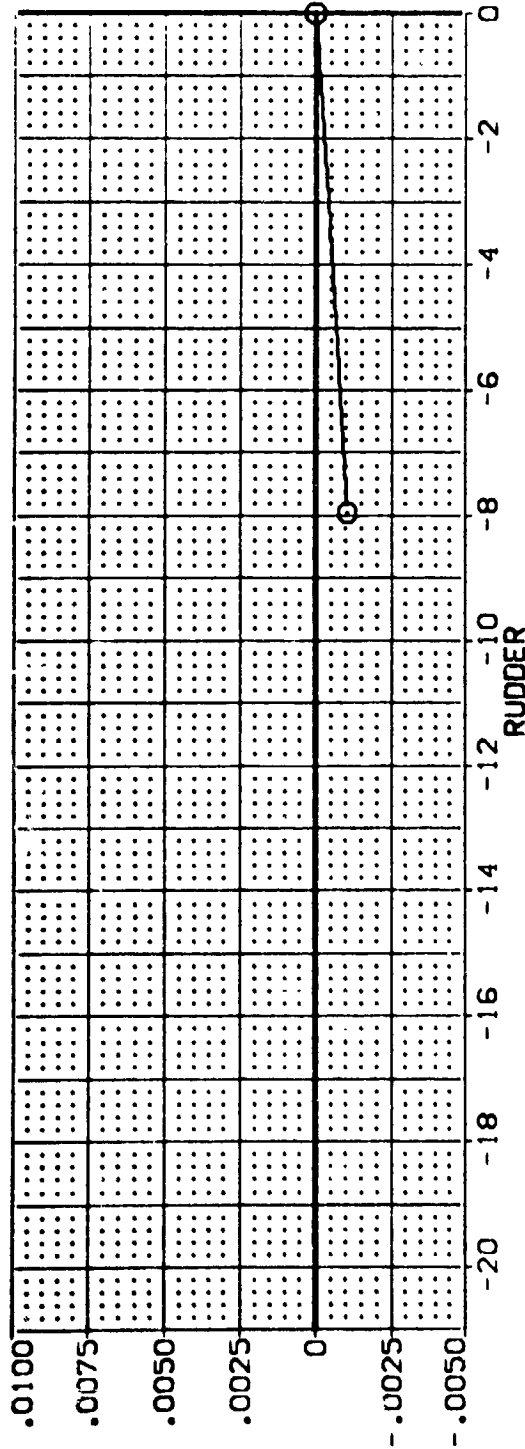


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z176)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	5.000	EDFLAP	.260 DELVON	RUDDER	SREF
		SPDRK	-12.000 AILRON	.000	LREF
			40.000 BETA	20Z330	BREF
					YMRP
					ZMRP
					SCALE
					SO.FT
					INCHES
					INCHES
					INCHES
					INCHES
					SCALE

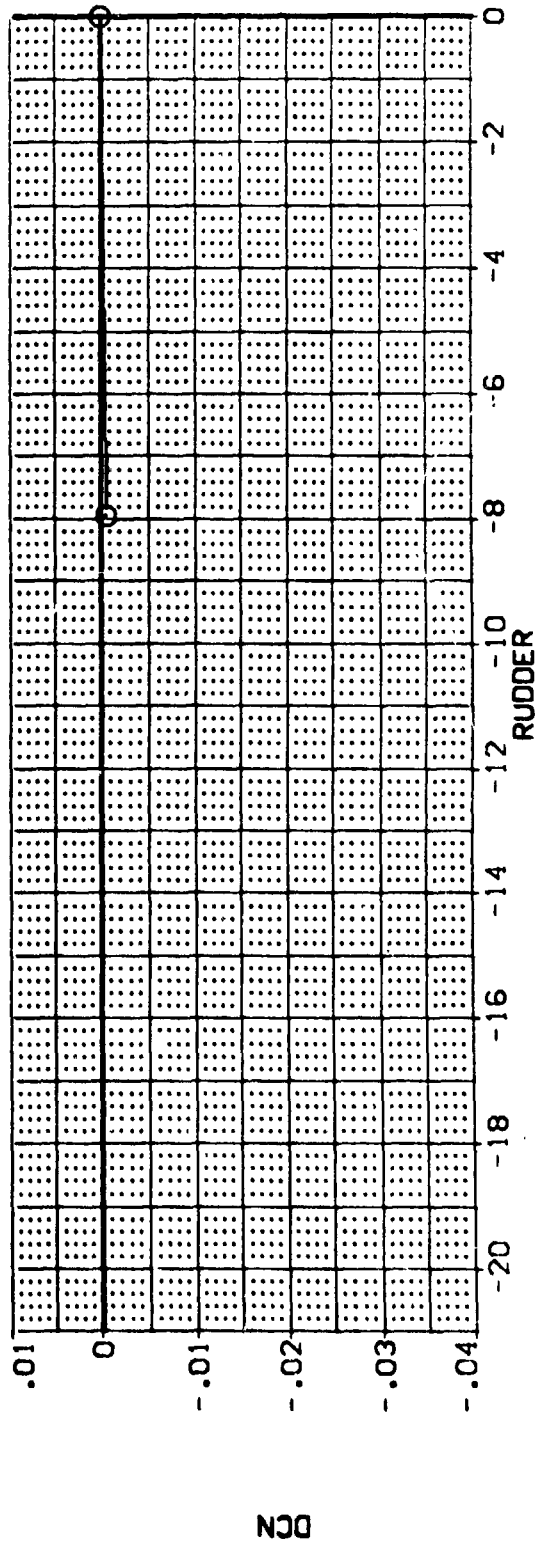
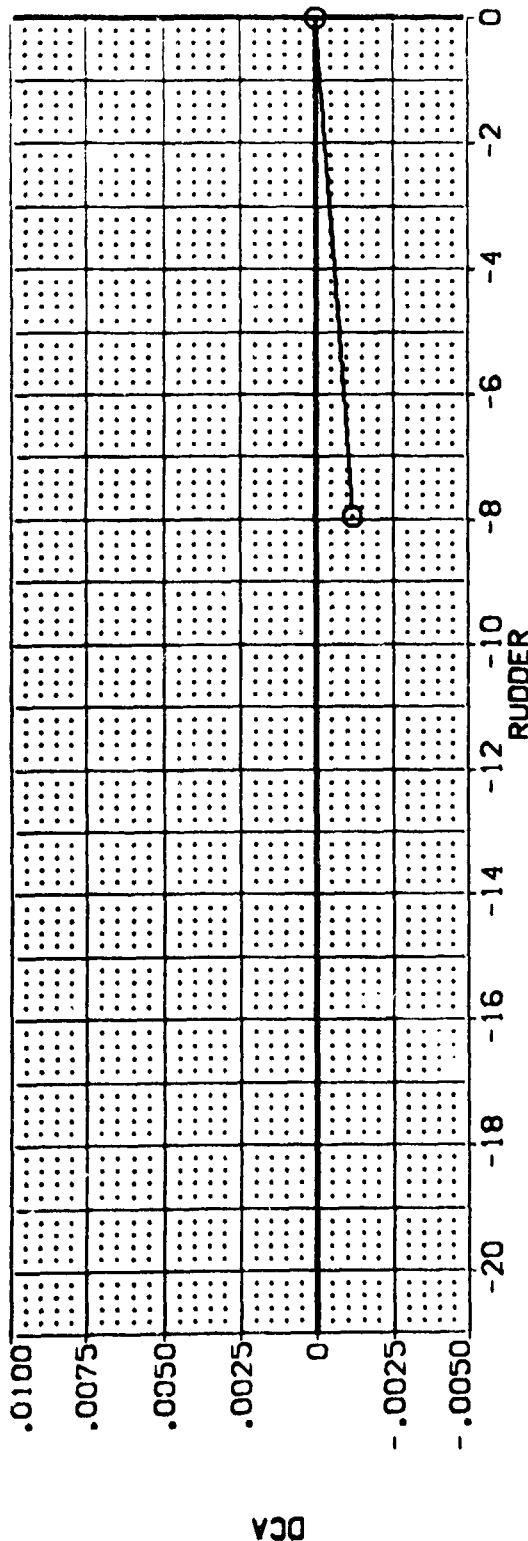


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z176)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
0	10.000	BOLAP	.260	DELTON	.000	DATA SET	RUDDER	SREF	4.4119	SQ.FT.	
		SPDRK	-12.000	AILRON	.000	20Z176	.000	LREF	19.2299	INCHES	
			40.000	BETA	.000			BREF	37.9359	INCHES	
								XGRP	43.5974	INCHES	
								YGRP	15.0000	INCHES	
								ZGRP	15.1875	INCHES	
								SCALE	.0405	SCALE	

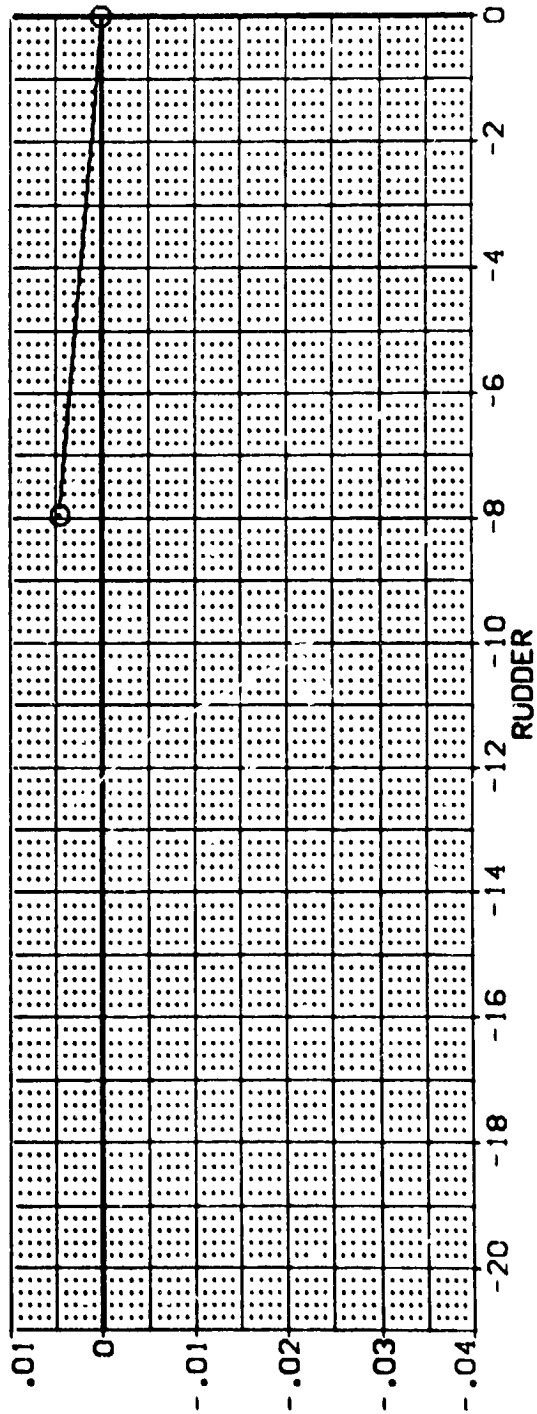
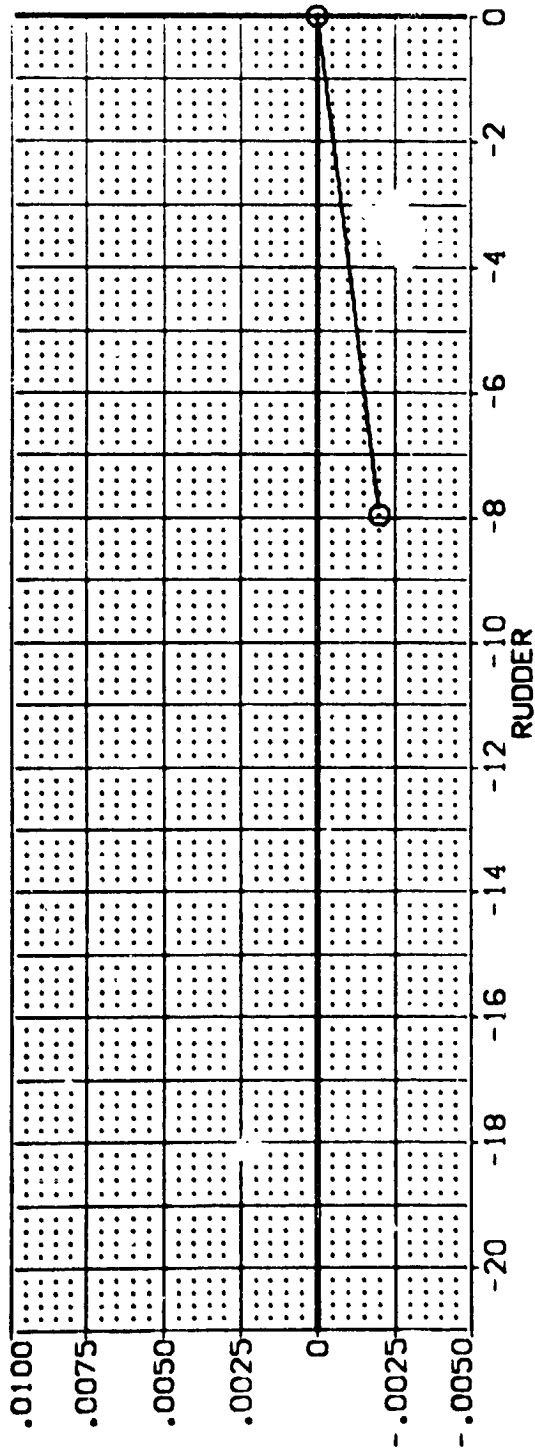


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (2DZ176)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DA'ASET	RUDDER	SREF	REFERENCE INFORMATION
0	15.000	BDFLAP	.260 DELVON	.000 DATASET	202330	.000	4.4119	SO.FT:
		SPDRK	-12.000 AILRON	.000 202176			19.2299	INC.FS
			40.000 BETA	.000			37.9359	INC.FS
							43.5974	INC.FS
							.0000	INC.FS
							15.1875	INC.FS
							.0405	SCALE

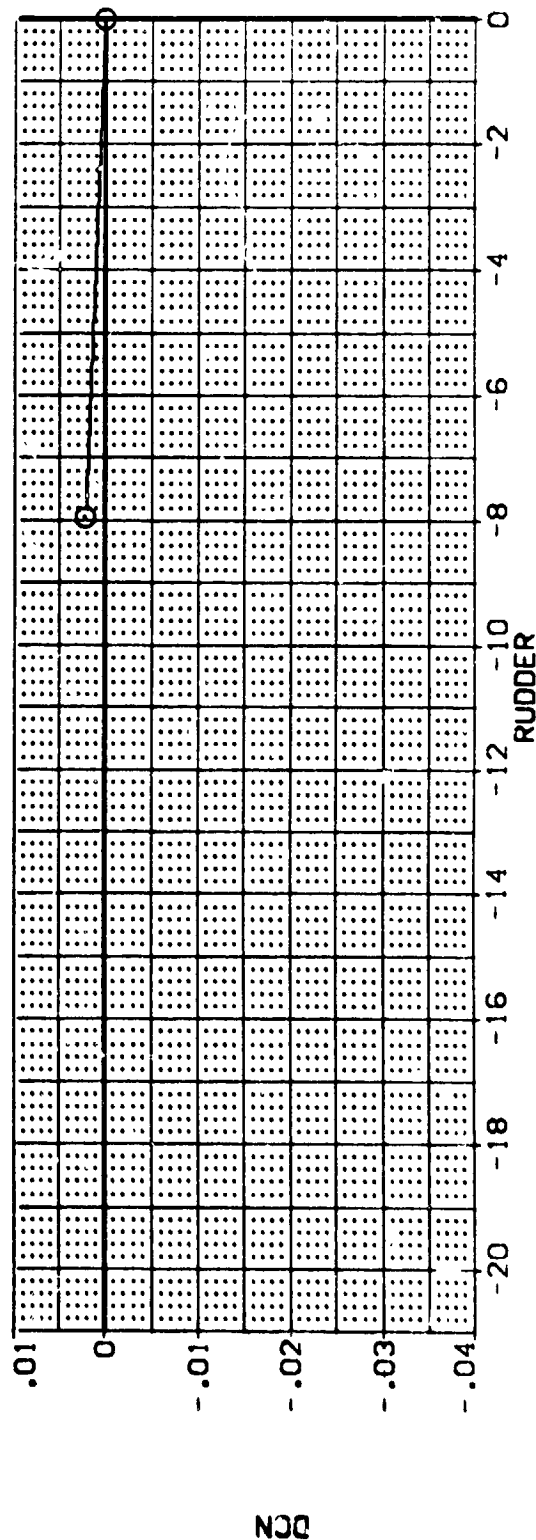
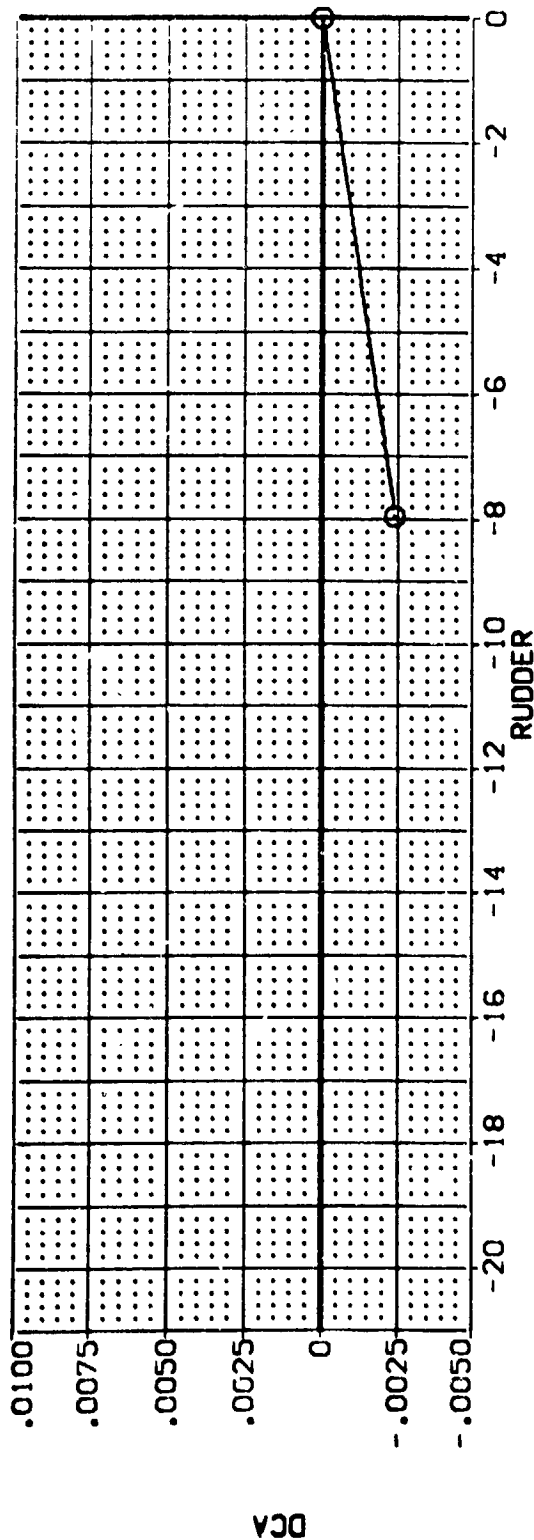


FIG 59 RUDDER EFFECTIVENESS. 40 DEG. FLARE



0A628 B26C9 M7F8 W116E28V8R5X0 (20Z176)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION				
			.260	DELTON	.000	DATASET	RUDDER	DATASET	RUDDER	SREF	SC.FT.	INCHES	INCHES
0	20.000	80FLAP	-12.000	AILRON	.000	20Z176	-7.960	20Z330	.000	19.2799	14.1119	37.9359	43.5971
		SPOBRK	40.000	BETA	.000					YMRP	YMRP	YMRP	YMRP
										ZMRP	ZMRP	ZMRP	ZMRP
										SCALE	SCALE	SCALE	SCALE

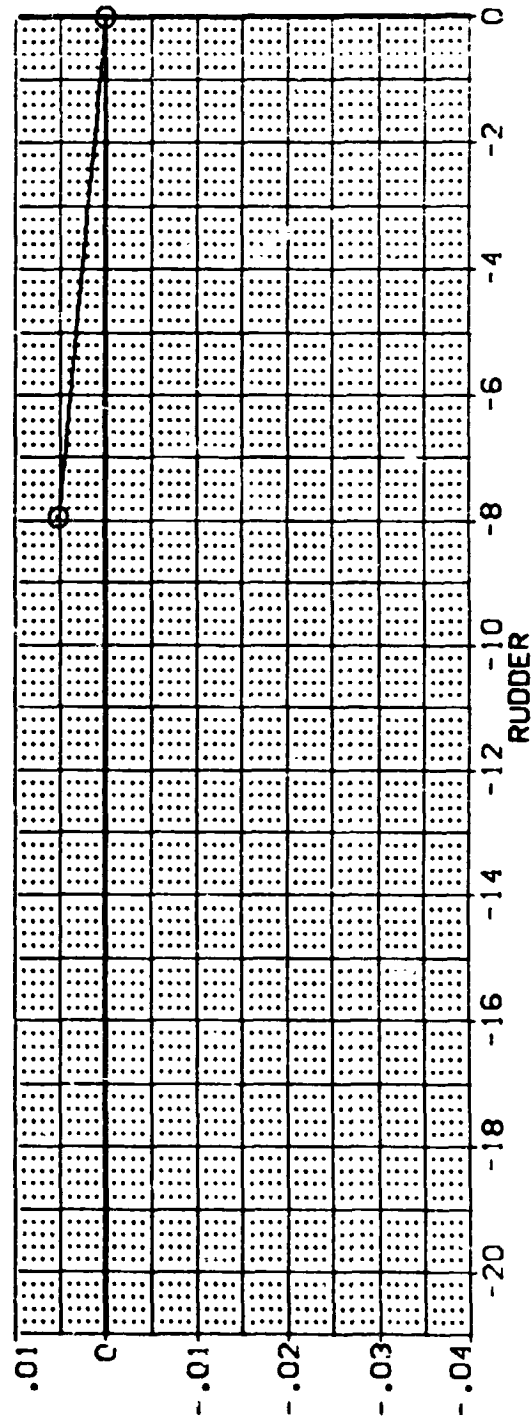
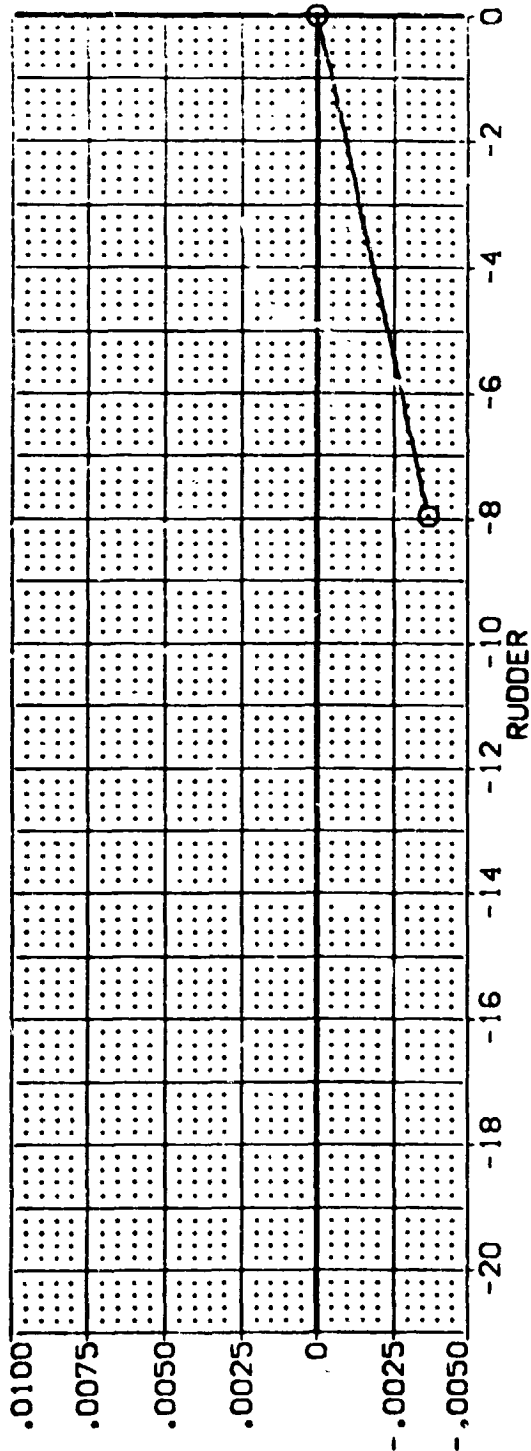


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(20Z176)

0A62B B26C9 M7F8 W116E28V8R5X9

M7F8

0A62B B26C9

SYMBOL  
O

ALPHA  
25.000

MACH  
80FLAP

SPOBRK

PARAMETRIC VALUES  
DELTA  
-12.000  
40.000  
BETA

DATA SOURCE  
RUDDER  
-7.962

DATASET  
20Z330

RUDDER  
.000

REFERENCE INFORMATION  
SO.FT.  
4.4119  
LREF  
19.2299  
BREF  
37.9359  
XREF  
43.5574  
YREF  
15.0000  
ZREF  
15.1875  
SCALE  
.0405

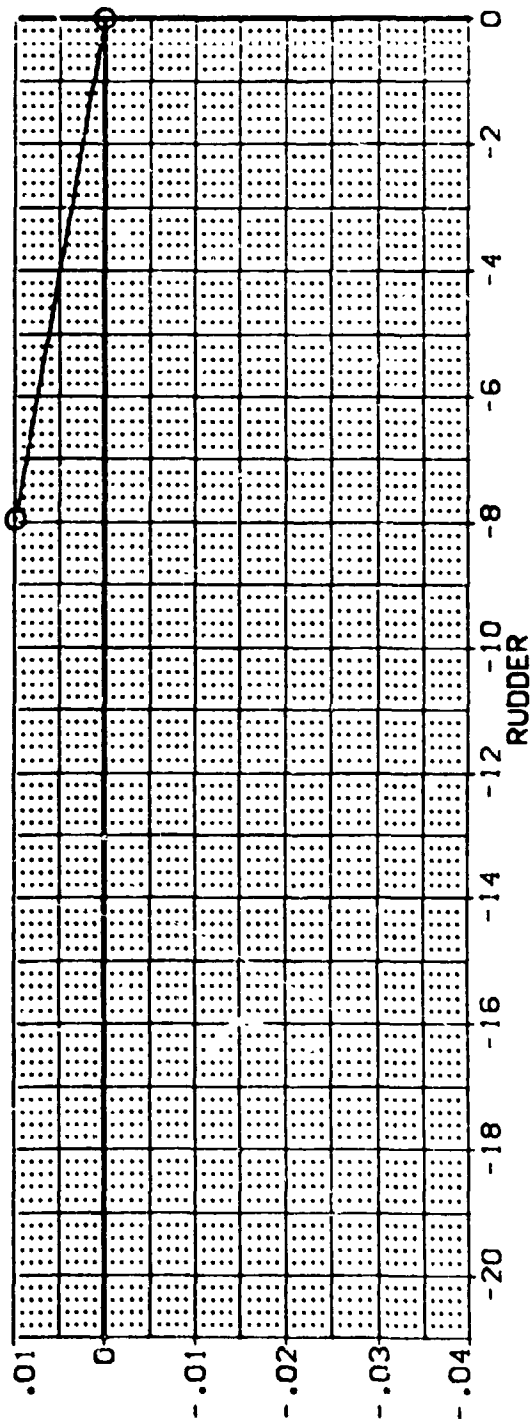
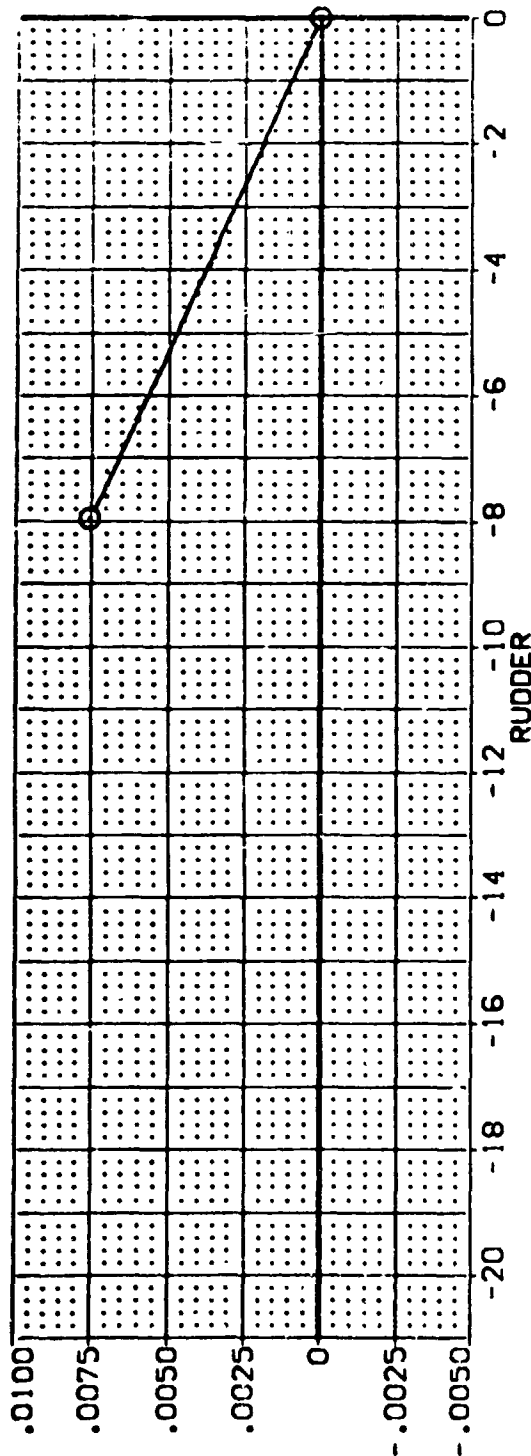


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

(20Z176)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL		ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
O		MACH	.260	DELTON	.000	DATASET	RUDDER	DATASET	RUDDER	SREF	4.4119	SQ.FT.
		BOFLAP	-12.000	AILRON	.000	20Z176	-7.960	20Z330	.000	LREF	19.2299	INCHES
		SPOBFX	40.000	BETA	.000					BREF	37.9359	INCHES
										XMRP	43.5874	INCHES
										YMRP	.0000	INCHES
									ZMRP	15.1875	INCHES	
									SCALE	.0405	SCALE	

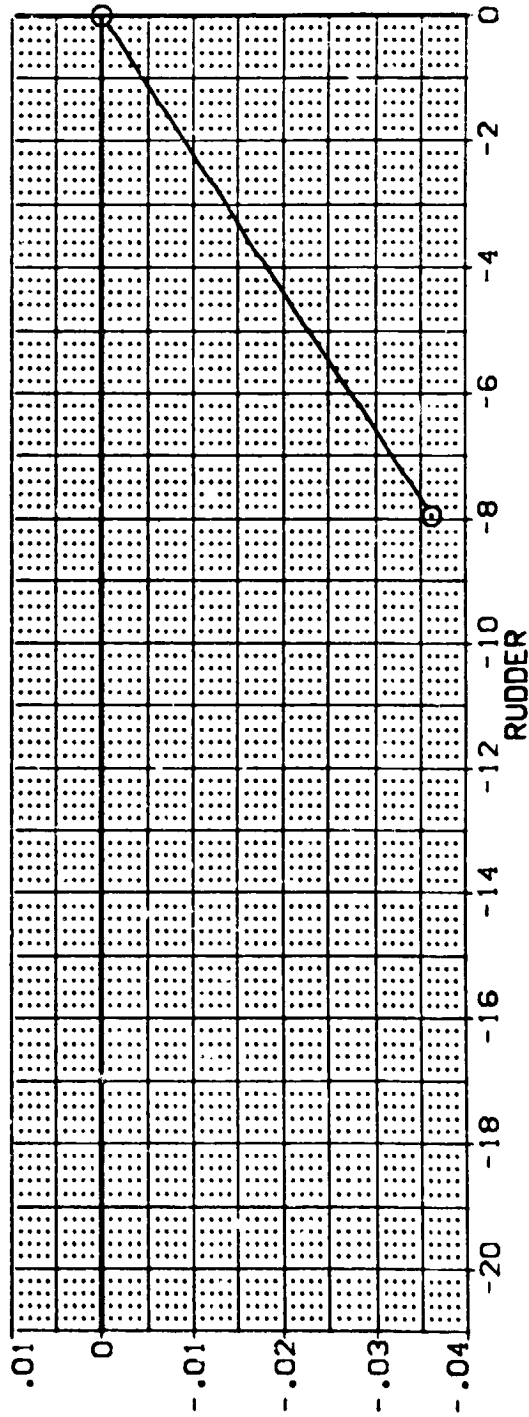
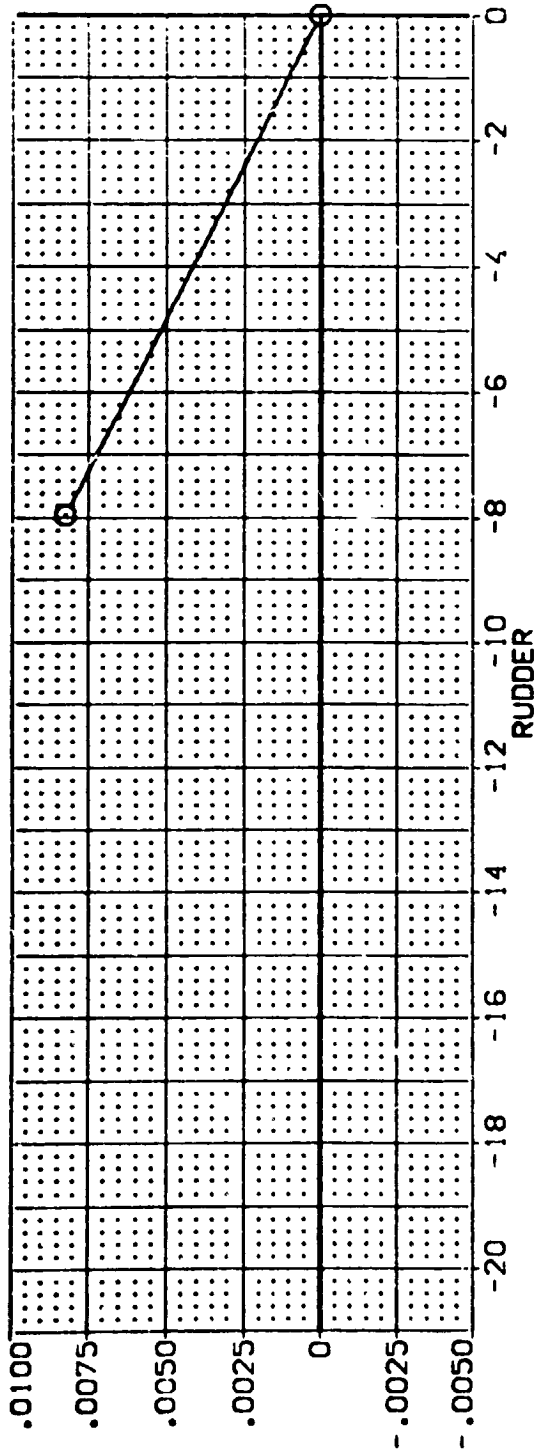


FIG 59 RUDDER EFFECTIVENESS, 40 DEG. FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BDF LAP	ALPHA	REFERENCE INFORMATION
[R02177]	DA628 B26C9 M7F8 V11E28V85X9	.000	40.000	-12.000	.000	SREF 4.4119 SC.F.T.
[R02178]	DA628 B26C9 M7F8 V11E28V85X9	.000	40.000	-12.000	.000	LREF 19.2799 NC-E5
[R02179]	DA628 B26C9 M7F8 V11E28V85X9	.000	40.000	-12.000	.000	LBREF 37.9359 NC-E5
[R02180]	DA628 B26C9 M7F8 V11E28V85X9	.000	40.000	-12.000	.000	XBREF 43.5974 NC-E5
[R02181]	DA628 B26C9 M7F8 V11E28V85X9	.000	40.000	-12.000	.000	YMRP 0.000 NC-E5
					15.1875	NC-E5
					SCALE	SCALE

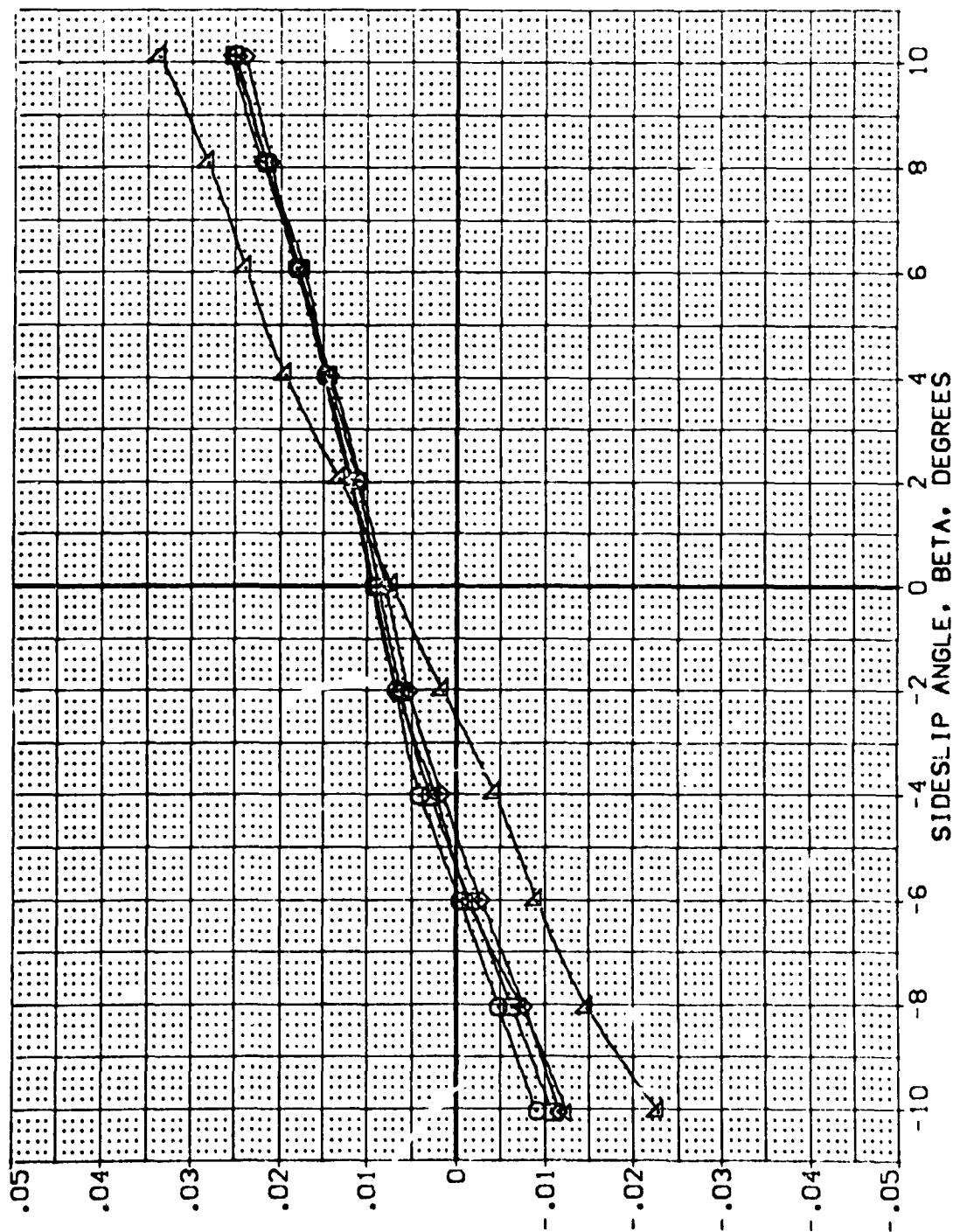


FIG 60 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 40 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOILER	BUFLAP	ALPHA	REFERENCE INFORMATION
[ROZ177]	0A528 226C9 M7F8 V116E 28V8PSX9	.000	40.000	-12.000	.000	SREF 4.4119 SC.F1
[ROZ178]	0A528 B26C9 M7F8 V116E 28V8PSX9	.000	40.000	-12.000	5.000	LR.F 19.2299 NC.F
[ROZ179]	0A528 B26C9 M7F8 V116E 28V8PSX9	.000	40.000	-12.000	10.000	BR.F 37.9359 NC.F
[ROZ180]	0A528 B26C9 M7F8 V116E 28V8PSX9	.000	40.000	-12.000	15.000	X-M2P 43.5974 NC.F
[ROZ181]	0A528 B26C9 M7F8 V116E 28V8PSX9	.000	40.000	-12.000	20.000	Y-M2P 15.1875 NC.F
						SCALE .04CS

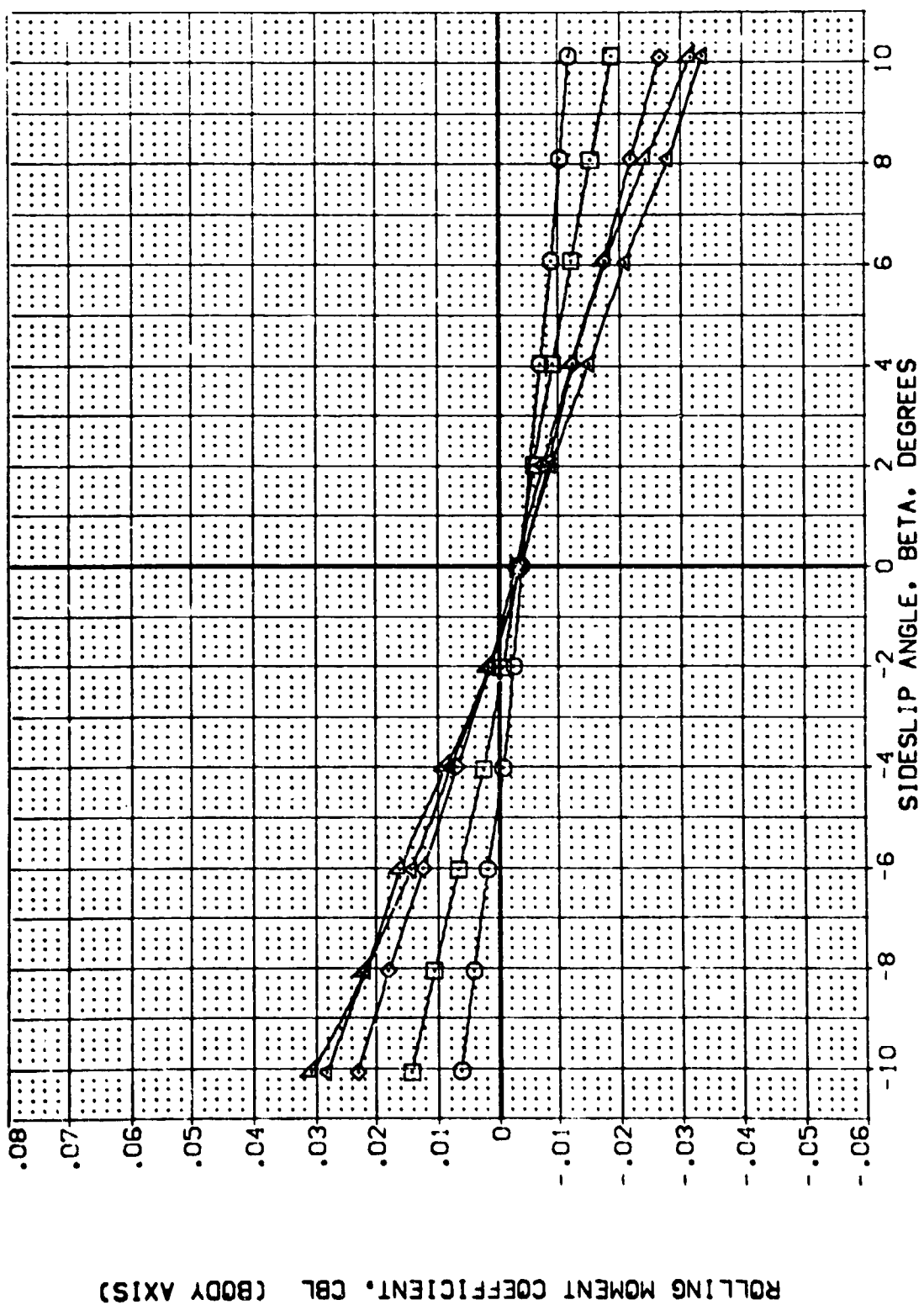


FIG 60 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 40 DEG FLARE

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	ALPHA	REFERENCE INFORMATION
(RDZ177)	□	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	.000	SREF 4.4119 SO.FT. INCHES
(RDZ178)	□	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	5.000	LREF 19.2799 INCHES
(RDZ179)	□	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	10.000	BREF 37.9359 INCHES
(RDZ180)	□	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	15.000	XREF 13.5974 INCHES
(RDZ181)	□	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	20.000	YREF 15.1875 INCHES
							ZREF .0405 SCALE

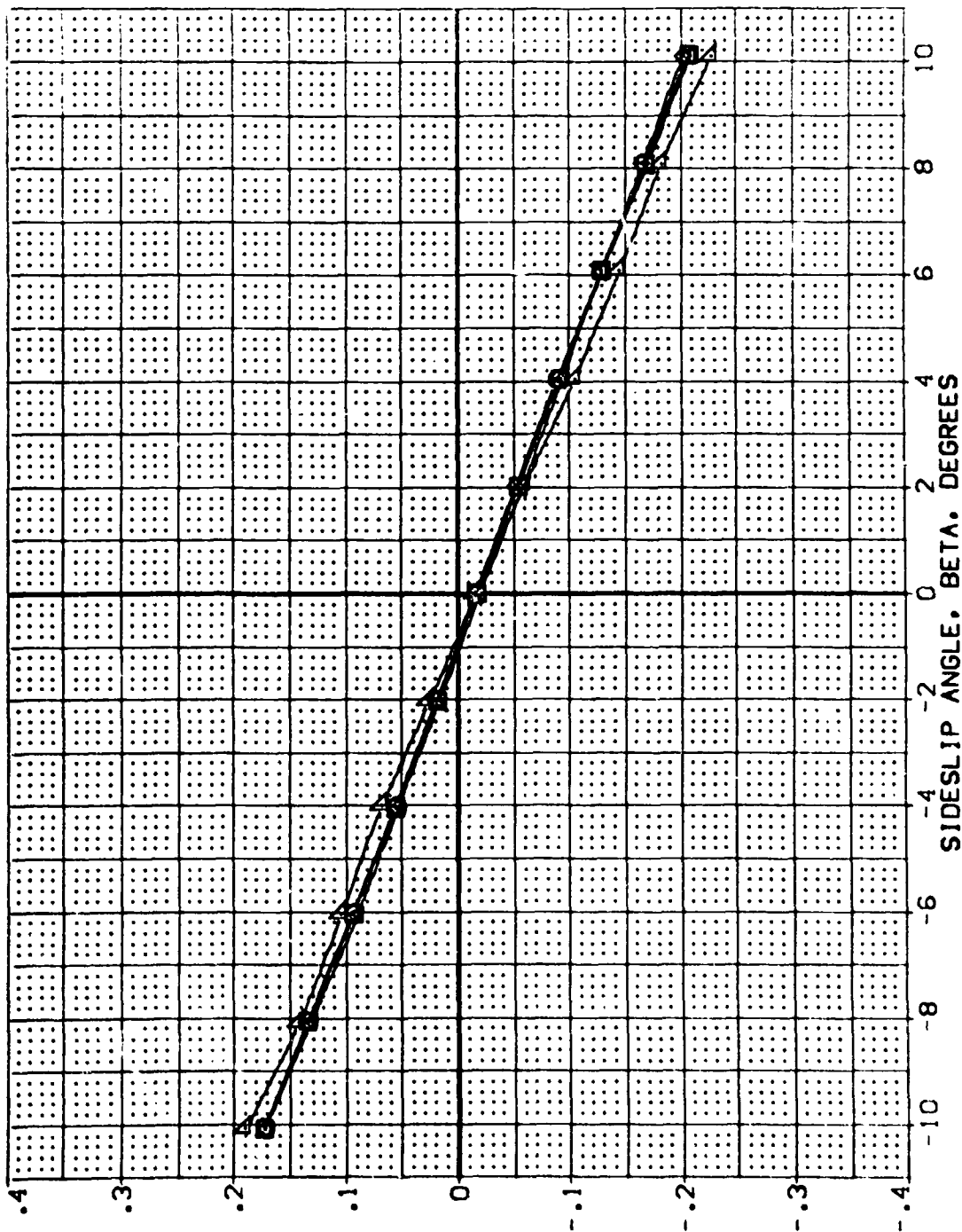


FIG 60 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 40 DEG FLARE

(A)MACH = .26

0A62B B26C9 M7F8 W116E28V8R5X9 (CDZ177)

SYMBOL  
O

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5874 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

PARAMETRIC VALUES  
MACH .260 BD/LAP -12.000  
ELEVON .000 AILRON .000  
SPDRK 40.000

RUDDER  
-7.980

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

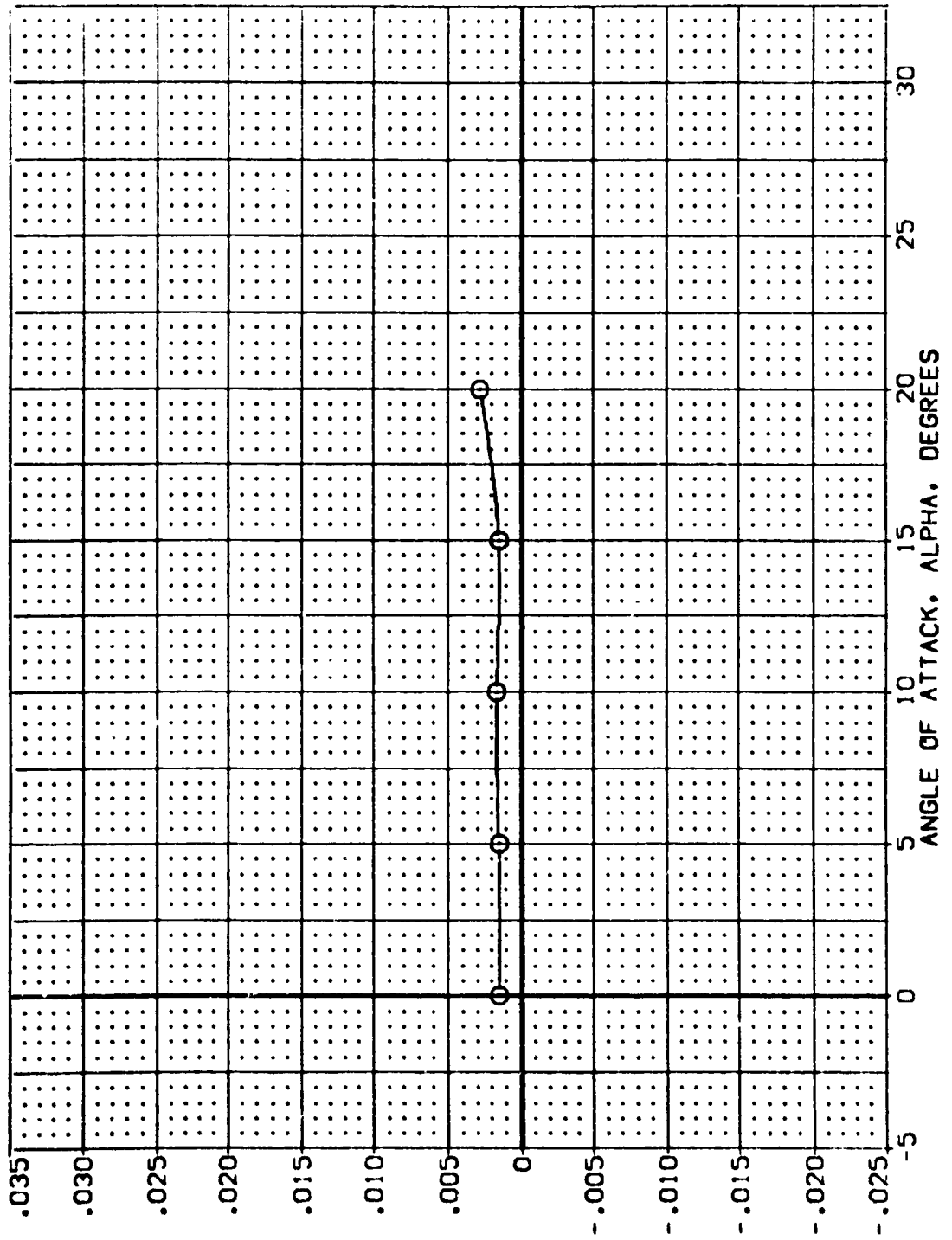


FIG 60 LATERAL-DIRECTIONAL STABILITY. RUDDER = -7.96. 40 DEG FLARE

(CDZ177)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

RUDDER  
-7.960

MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.260 BOFLAP  
.000 AILRON  
40.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119  
LREF 19.2299  
BREF 37.9359  
XMRP 43.5574  
YMRP .0000  
ZMRP 15.1875  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET. PER DEGREE

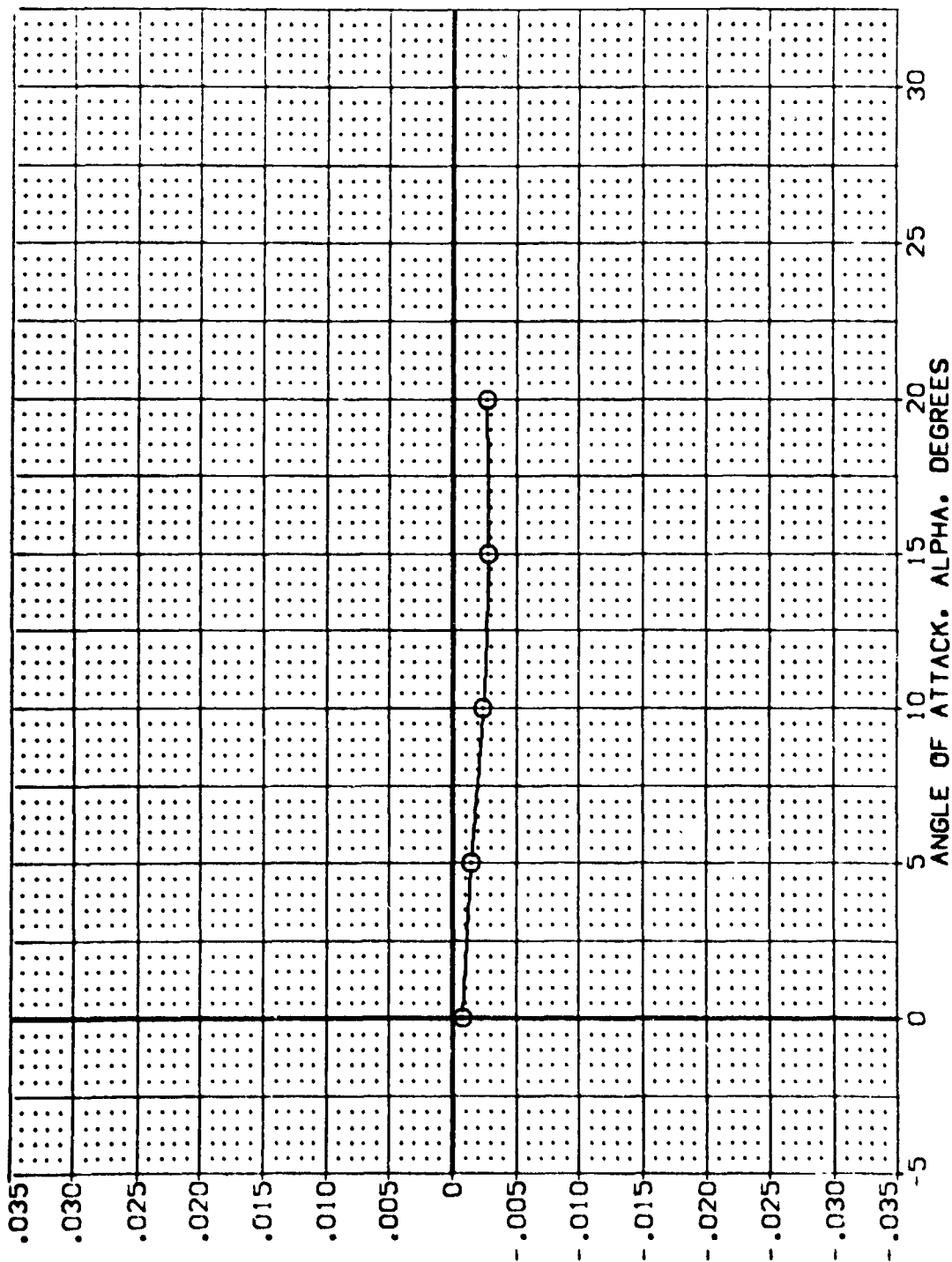


FIG 60 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 40 DEG FLARE



(COZ177)

0A62B B26C9 M7F8 W116E28V8R5X9

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
YMRP 43.5974 INCHES  
ZMRP .0000 INCHES  
SCALE 15.1875 INCHES  
SCALE .0405

PARAMETRIC VALUES  
MACH .260 BOFLAP -12.000  
ELEVON .0000 AILRON .000  
SPDRK 40.000

SYMBOL  
O

RUDDER  
-7.960

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

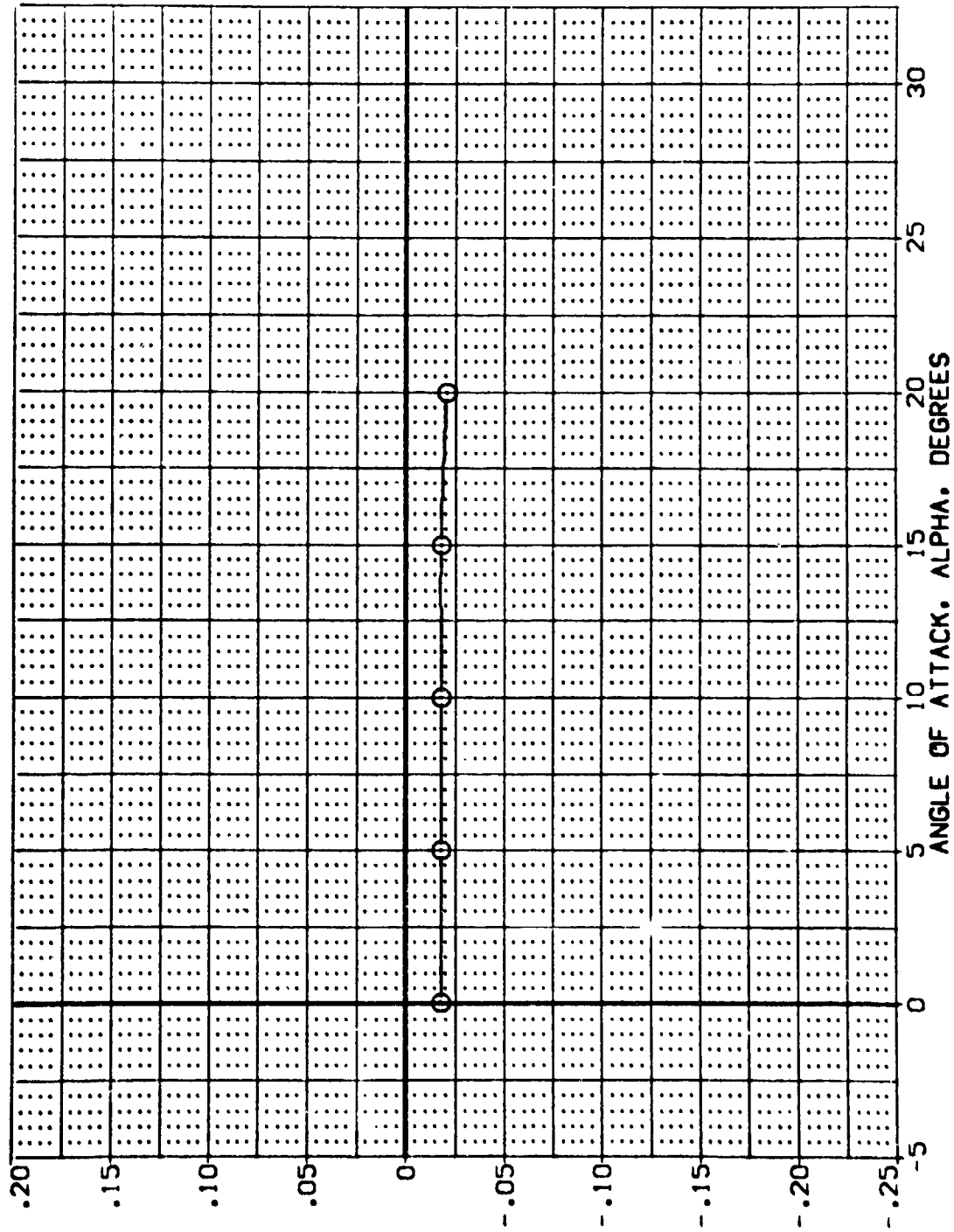


FIG 60 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 40 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRBK	BDF LAP	ALPHA	REFERENCE INFORMATION
[R02183]	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	.000	SREF 4.4119 SQ.FT
[R02184]	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	5.000	LREF 19.2298 INCHES
[R02185]	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	10.000	BREF 37.9359 INCHES
[R02186]	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	15.000	XMRP 43.5974 INCHES
[R02187]	DA628 B26C9 M7F8 V116E28V8R5X9	.000	40.000	-12.000	20.000	YMRP .0000 INCHES
						SCALE 15.1875 INCHES

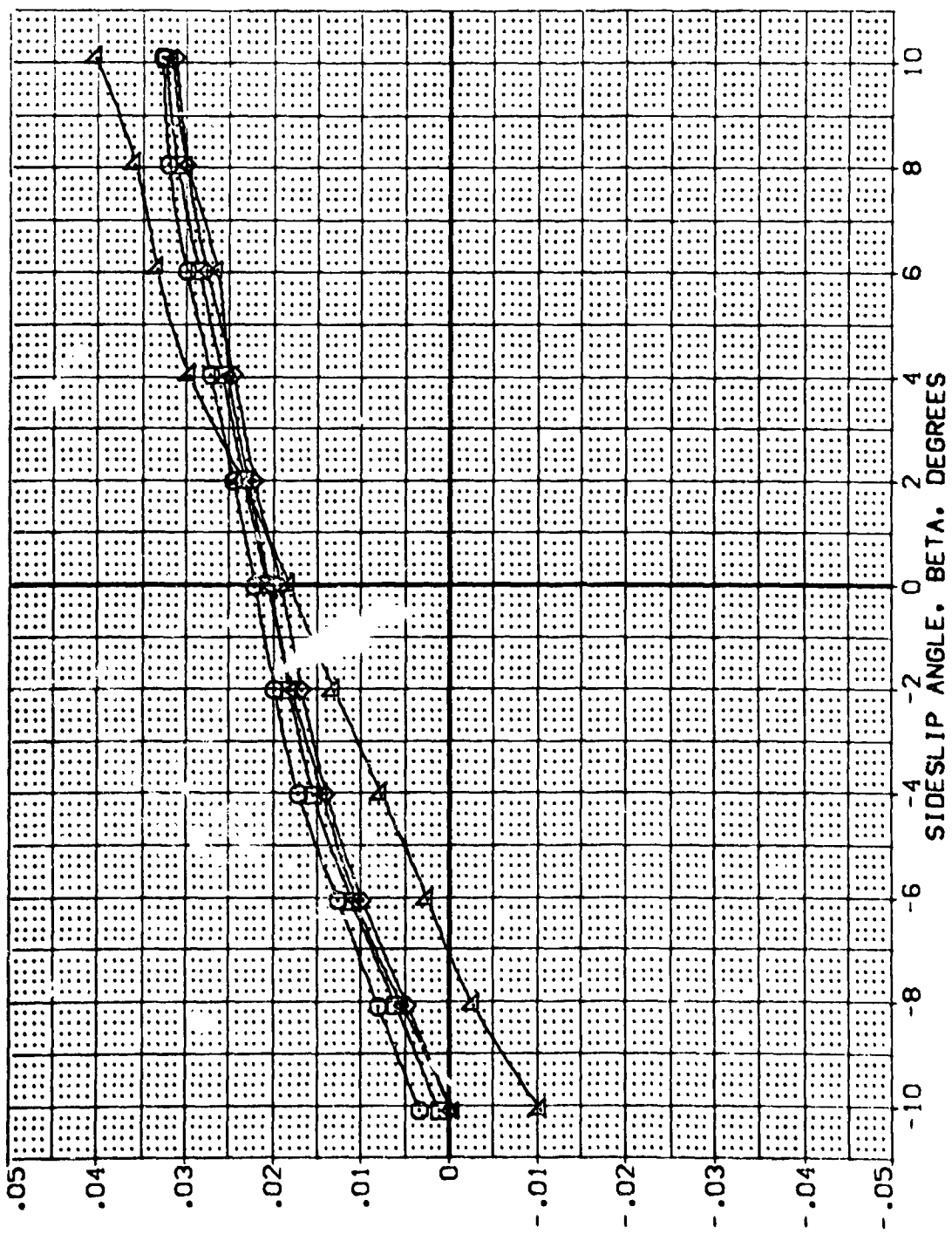


FIG 61 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 40 DEG FLARE

(AJMAC) = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPEED	BOFLAP	ALPHA	REFERENCE INFORMATION
[RZ183]	0A528 B26C9 M7F8 V115E28V8P5X9	.000	40.000	-12.000	.000	SREF 4.4119 SC.F.T.
[RZ184]	0A528 B26C9 M7F8 V115E28V8P5X9	.000	40.000	-12.000	5.000	LREF 19.2799 INCHES
[RZ185]	0A528 B26C9 M7F8 V115E28V8P5X9	.000	40.000	-12.000	10.000	BREF 37.9359 INCHES
[RZ186]	0A528 B26C9 M7F8 V115E28V8P5X9	.000	40.000	-12.000	15.000	XMRP 43.5874 INCHES
[RZ187]	0A528 B26C9 M7F8 V115E28V8P5X9	.000	40.000	-12.000	20.000	YMRP 15.0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

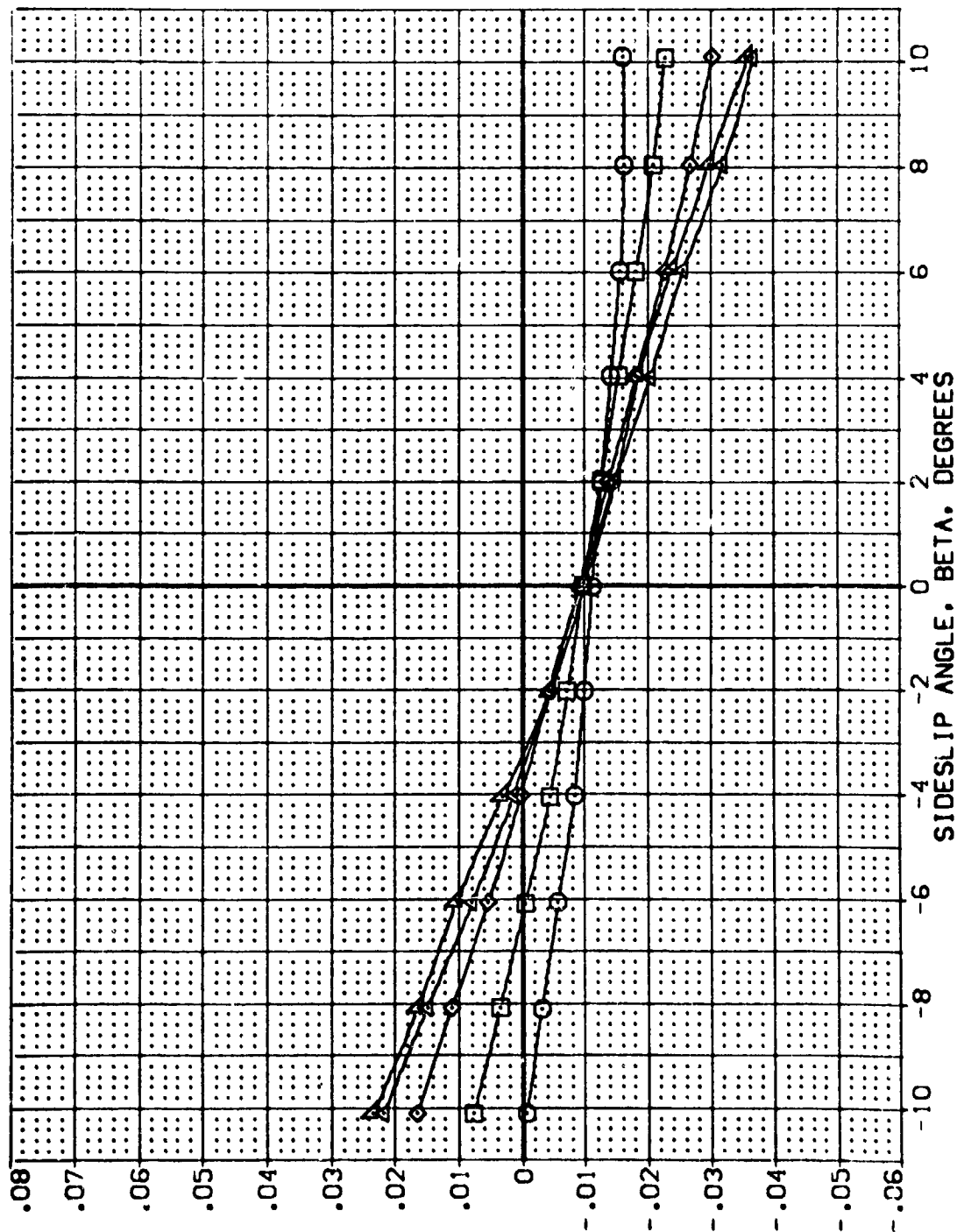


FIG 61 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 40 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPORAK	BOFLAP	ALPHA	REFERENCE INFORMATION	SO.FT.
[RDZ183]	DA628 B26C9 M7F8 V116E28V8PSX9	.000	40.000	-12.000	.000	SREF	4.4119
[RDZ184]	DA628 B26C9 M7F8 V116E28V8PSX9	.000	40.000	-12.000	5.000	LREF	19.2299
[RDZ185]	DA628 B26C9 M7F8 V116E28V8PSX9	.000	40.000	-12.000	10.000	BREF	37.9359
[RDZ186]	DA628 B26C9 M7F8 V116E28V8PSX9	.000	40.000	-12.000	15.000	XMRP	43.5974
[RDZ187]	DA628 B26C9 M7F8 V116E28V8PSX9	.000	40.000	-12.000	20.000	YMRP	0000
						ZMRP	15.1875
						SCALE	.0405

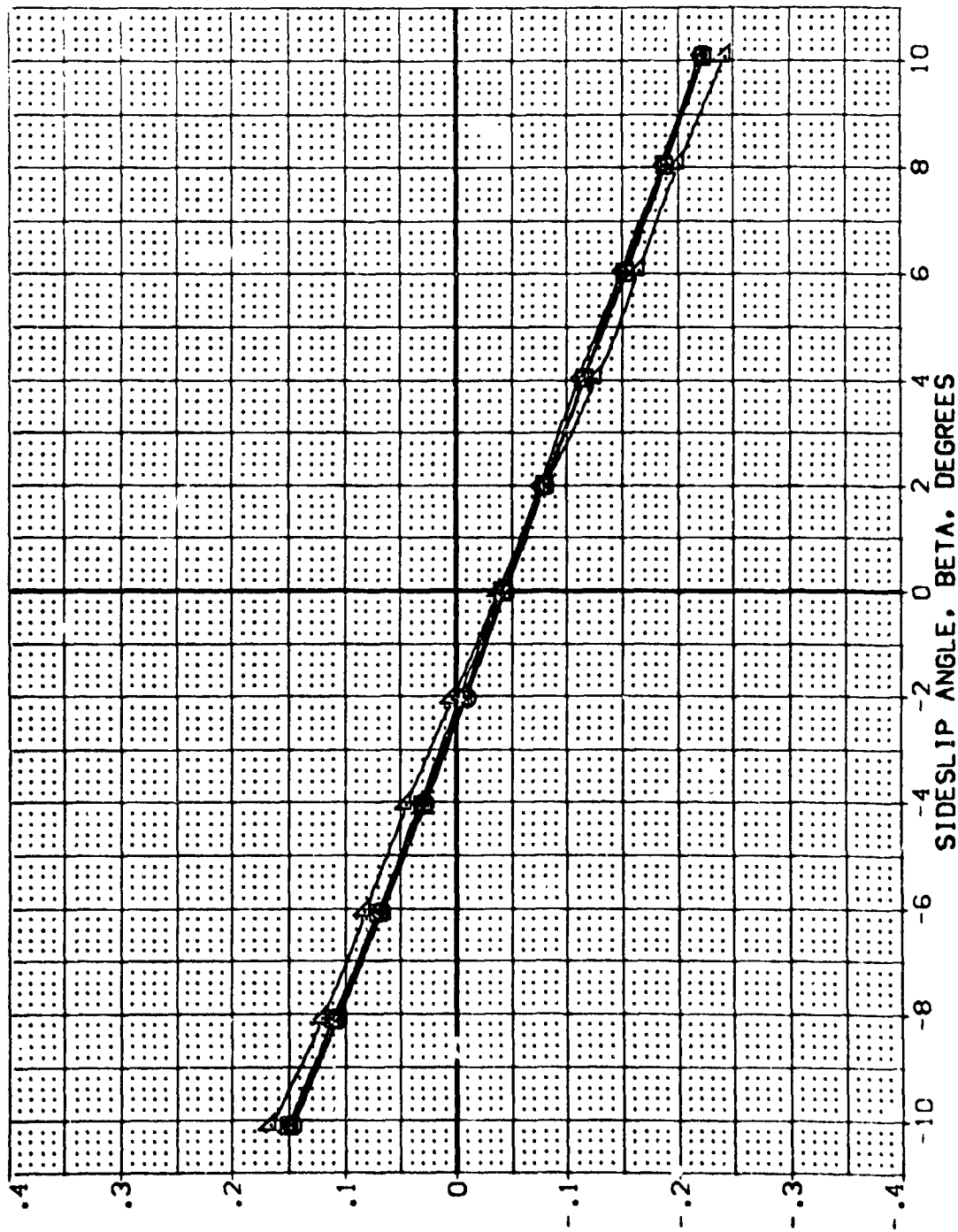


FIG 61 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 40 DEG FLARE

(A)MACH = .26

(CDZ183)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O  
RUDDER  
-16.220  
MACH  
ELEVON  
SPDRX  
PARAMETRIC VALUES  
.260 BOFLAP  
.000 AILRON  
40.000  
REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2298 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

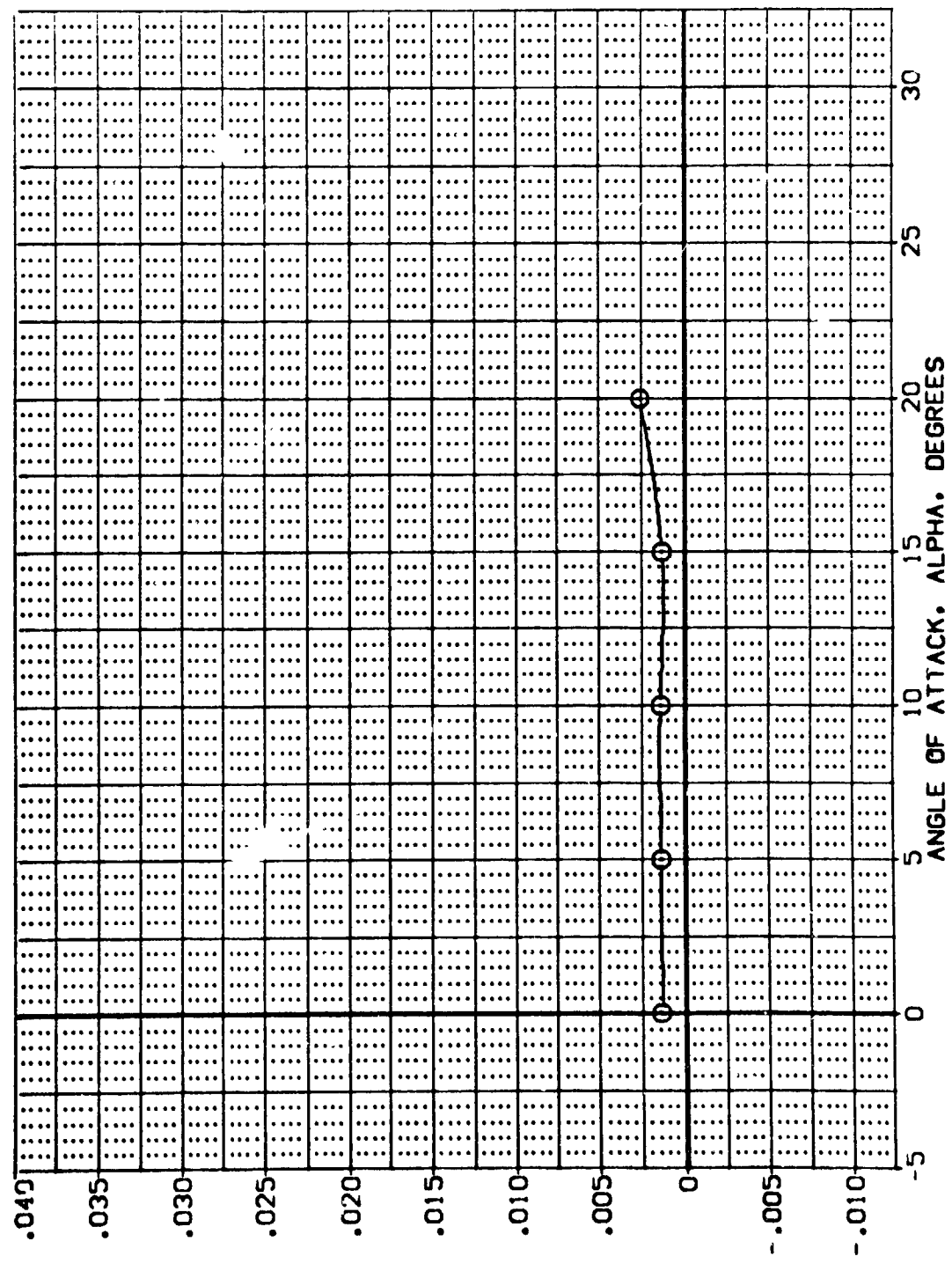


FIG 61 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 40 DEG FLARE

(CDZ183)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL  
○

RUDDER  
-16.220

MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.250 BOFLAP  
.000 AILRON  
40.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
VMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

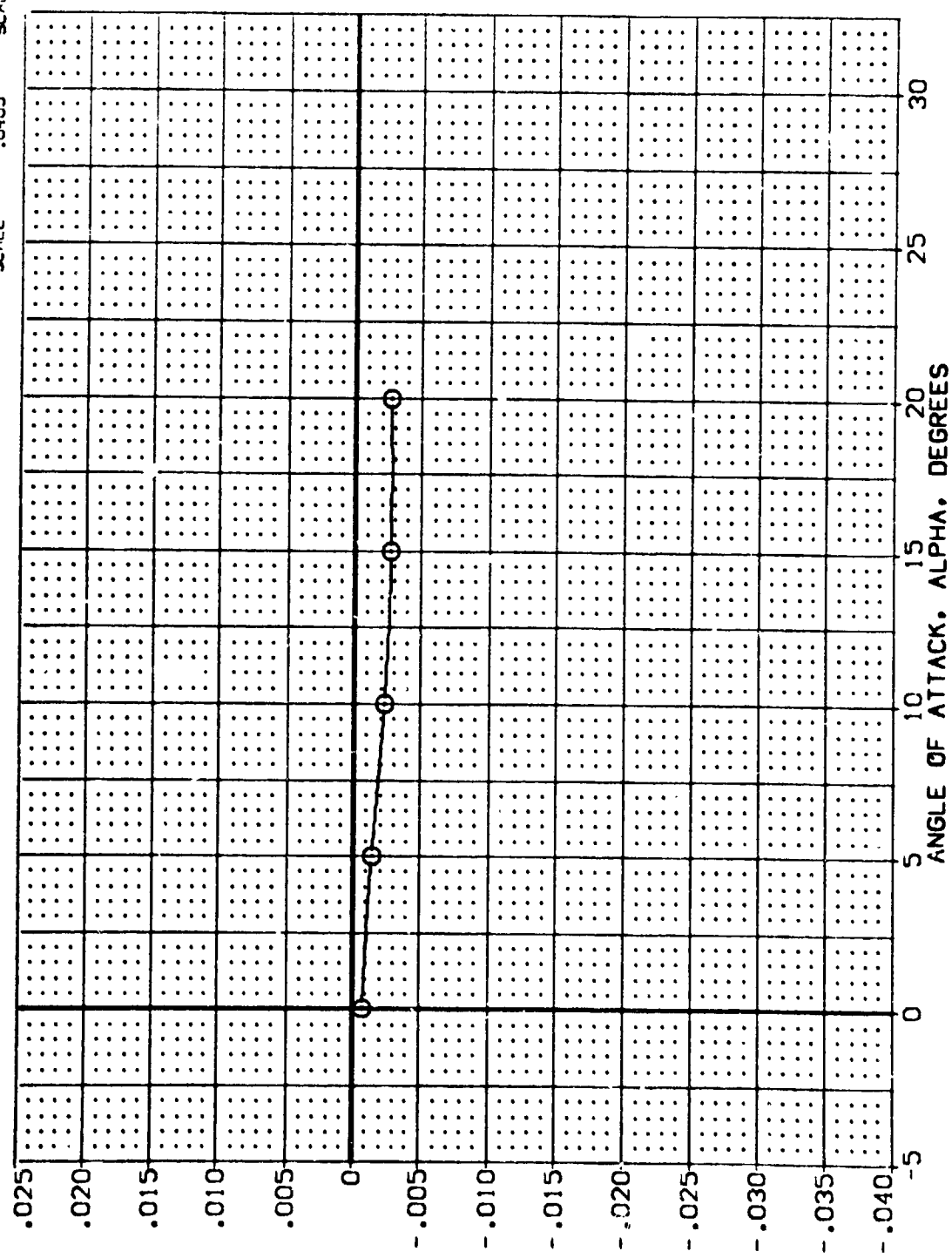


FIG 61 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 40 DEG FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (CDZ183)

SYMBOL  
O

RUDDER  
-16.220

MACH  
ELEVON  
SPOON

PARAMETRIC VALUES  
.260 BDFLAP  
.000 AILRON  
40.000

REFERENCE INFORMATION  
LREF 7.4119  
LREF 19.2299  
BREF 37.9359  
XREF 43.5874  
YREF .0000  
ZREF 15.1875  
SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

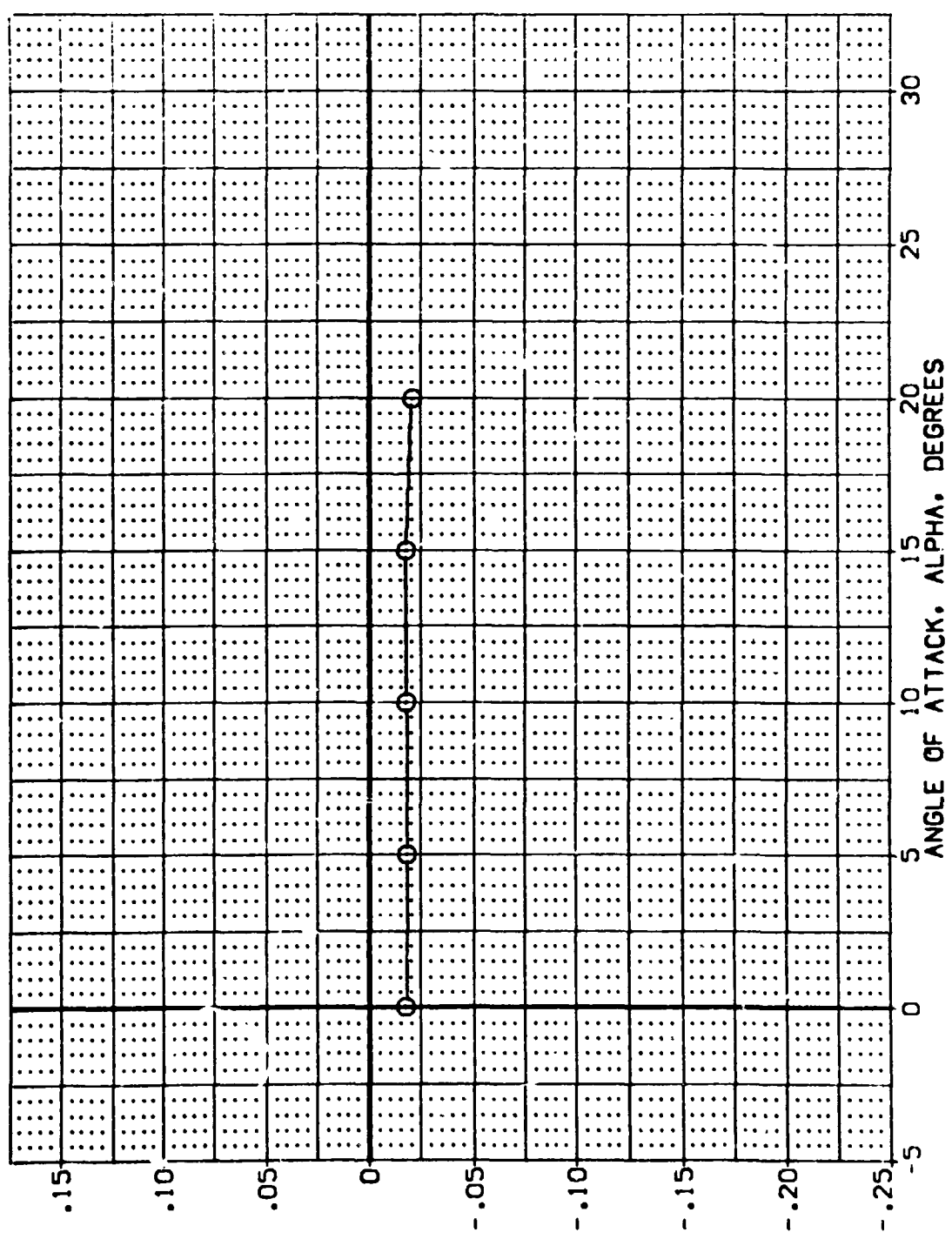


FIG 61 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 40 DEG FLARE

DATA SET SYMBOL: [R02345] [R02349] [R02343]  
 CONFIGURATION DESCRIPTION: DAE28 B76C9 M718 V116E28V85X9  
 DAE28 B76C9 M718 V116E28V85X9  
 DAE28 B76C9 M718 V116E28V85X9

ELEVON: .000  
 SPOILER: 55.000  
 BOFLAP: -12.000  
 RUDDER: -16.220  
 LREF: 19.2799  
 BREF: 37.9359  
 XREF: 43.5974  
 YREF: 15.0000  
 ZREF: 15.1875  
 SCALE: .0425

REFERENCE INFORMATION:  
 SREF: 4.4119  
 LREF: 19.2799  
 BREF: 37.9359  
 XREF: 43.5974  
 YREF: 15.0000  
 ZREF: 15.1875  
 SCALE: .0425

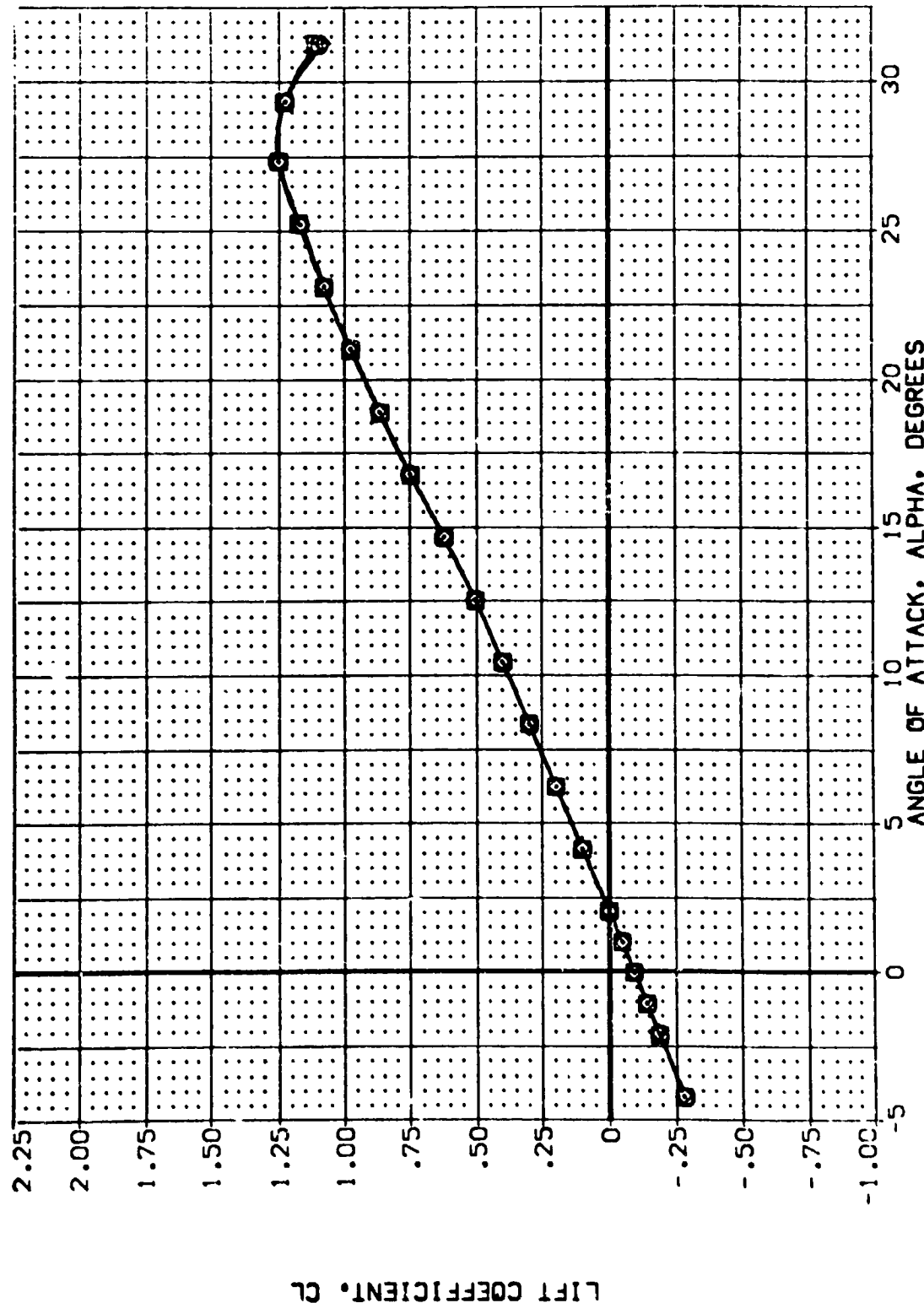


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

(A)MACH = .26



DATA SET SYMBOL: [RDZ355] [RDZ349] [RDZ343]

CONFIGURATION DESCRIPTION: DA628 B26C9 M7F8 V116E28V8F5X9  
 DA628 B26C9 M7F8 V116E28V8F5X9  
 DA628 B26C9 M7F8 V116E28V8F5X9

ELEVON: .000 .000 .000

SPOBRK: 55.000 55.000 55.000

BDF LAR: -12.000 -12.000 -12.000

RUDDER: -15.270 -7.560 .000

REFERENCE INFORMATION: SREF 4.4119 50. FT  
 LREF 19.2799 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5874 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

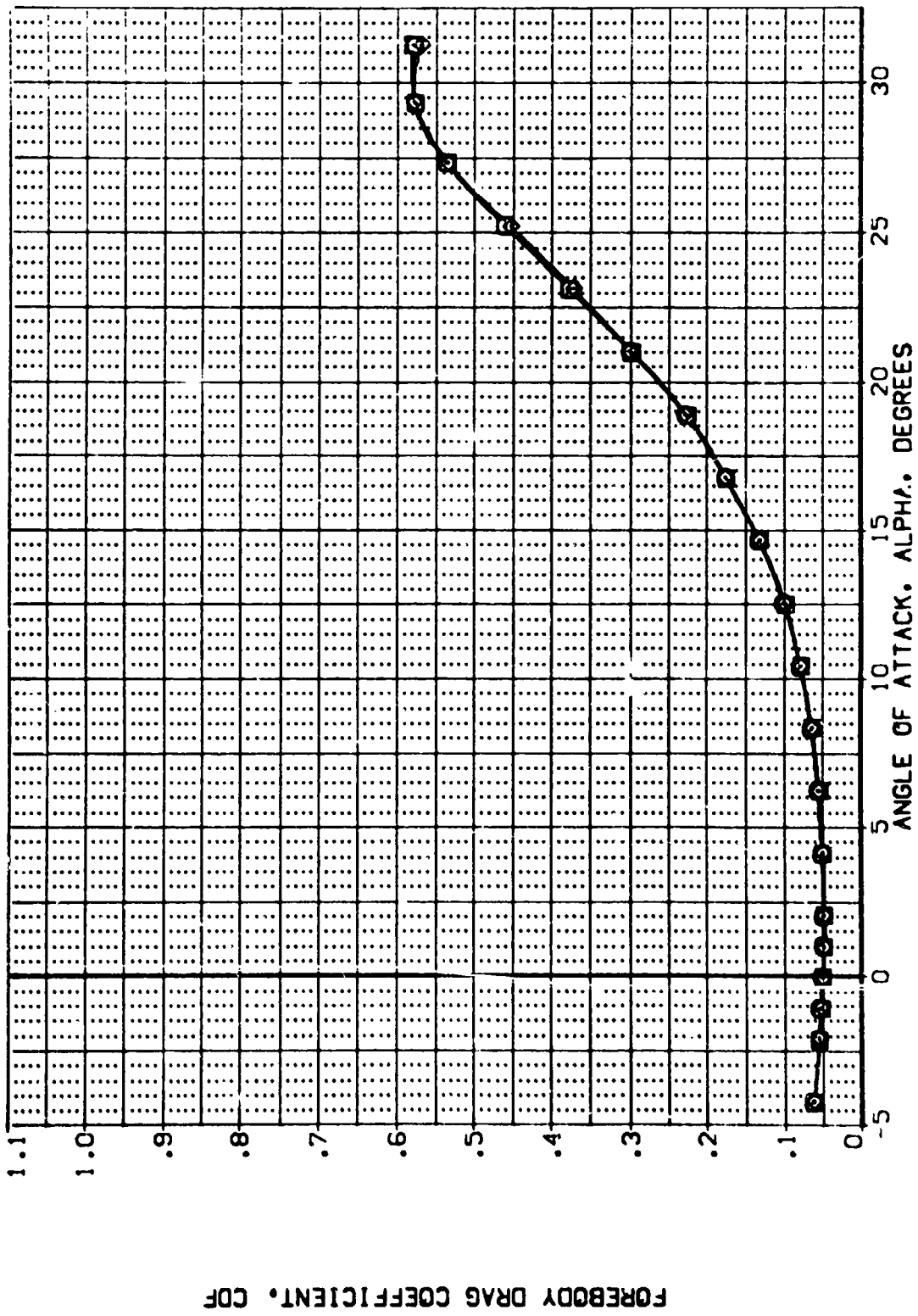


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    SPOILER    BOLFAP    RUDDER    REFERENCE INFORMATION

[R02355]	0A628 B76C9 M7F8 V116E28V8PSX9	.000	55.000	-12.000	-16.220	SREF 4.4119 SC.F.1
[R02349]	0A628 B76C9 M7F8 V116E28V8PSX9	.000	55.000	-12.000	-7.960	LREF 19.2298 NC-E.S
[R02343]	0A628 B76C9 M7F8 V116E28V8PSX9	.000	55.000	-12.000	.000	BREF 37.9358 NC-E.S
						XMRP 43.5874 NC-E.S
						YMRP .0000 NC-E.S
						ZMRP 15.1875 NC-E.S
						SCALE .0405

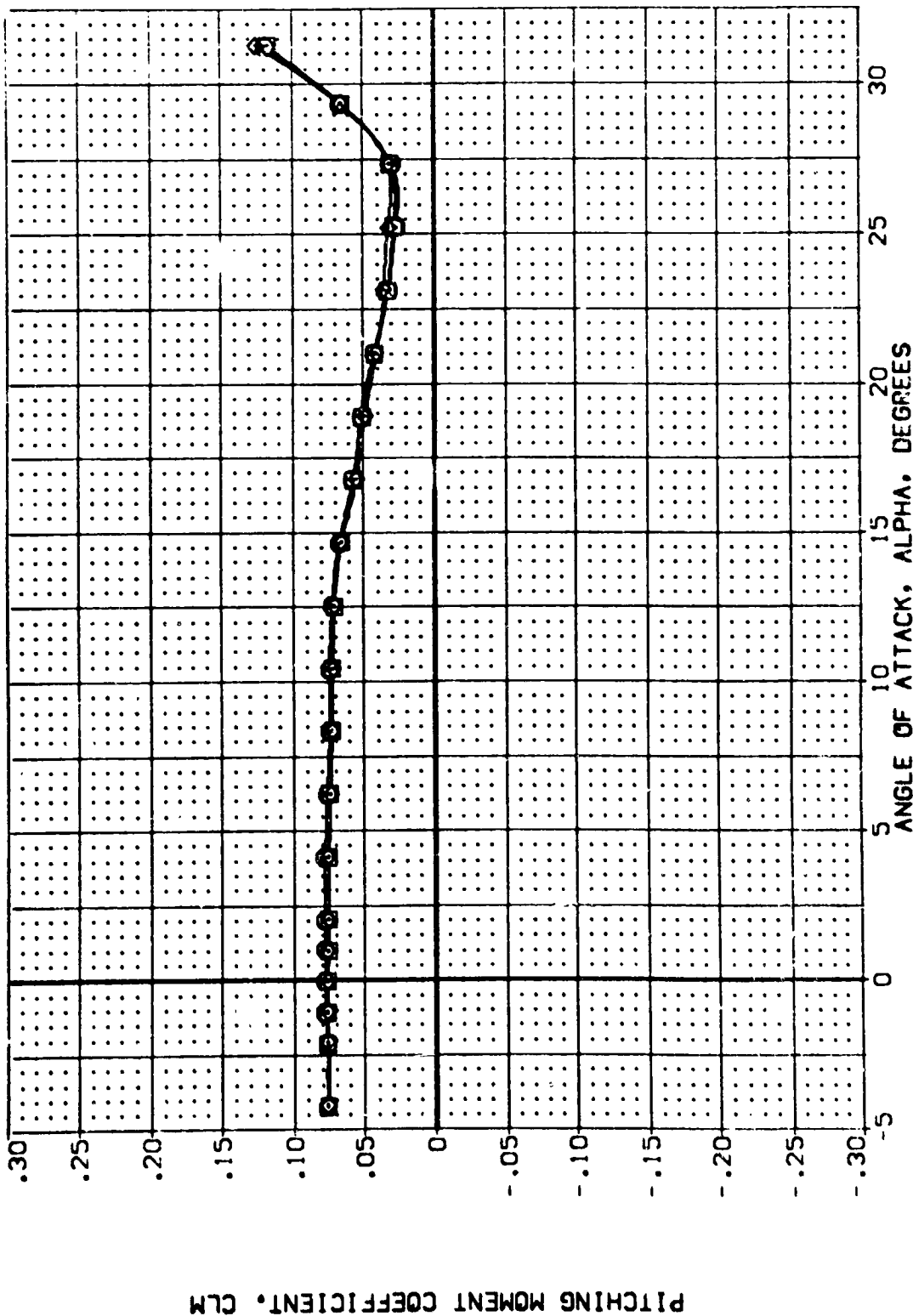


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOBRK	BOFLAP	RUDDER	REFERENCE INFORMATION	
(R02355)	0A628 B26C9 M7F8 V111E28V8A.X9	.000	55.000	-12.000	-15.270	SREF	4.4119 SQ.FT.
(R02349)	0A628 B26C9 M7F8 V111E28V8P5X9	.000	55.000	-12.000	-7.960	LREF	19.2799 INCHES
(R02343)	0A628 B26C9 M7F8 V111E28V8P3X9	.000	55.000	-12.000	.000	BREF	37.9329 INCHES
						XMRP	43.5874 INCHES
						YMRP	.0000 INCHES
						ZMRP	15.1875 INCHES
						SCALE	.0405

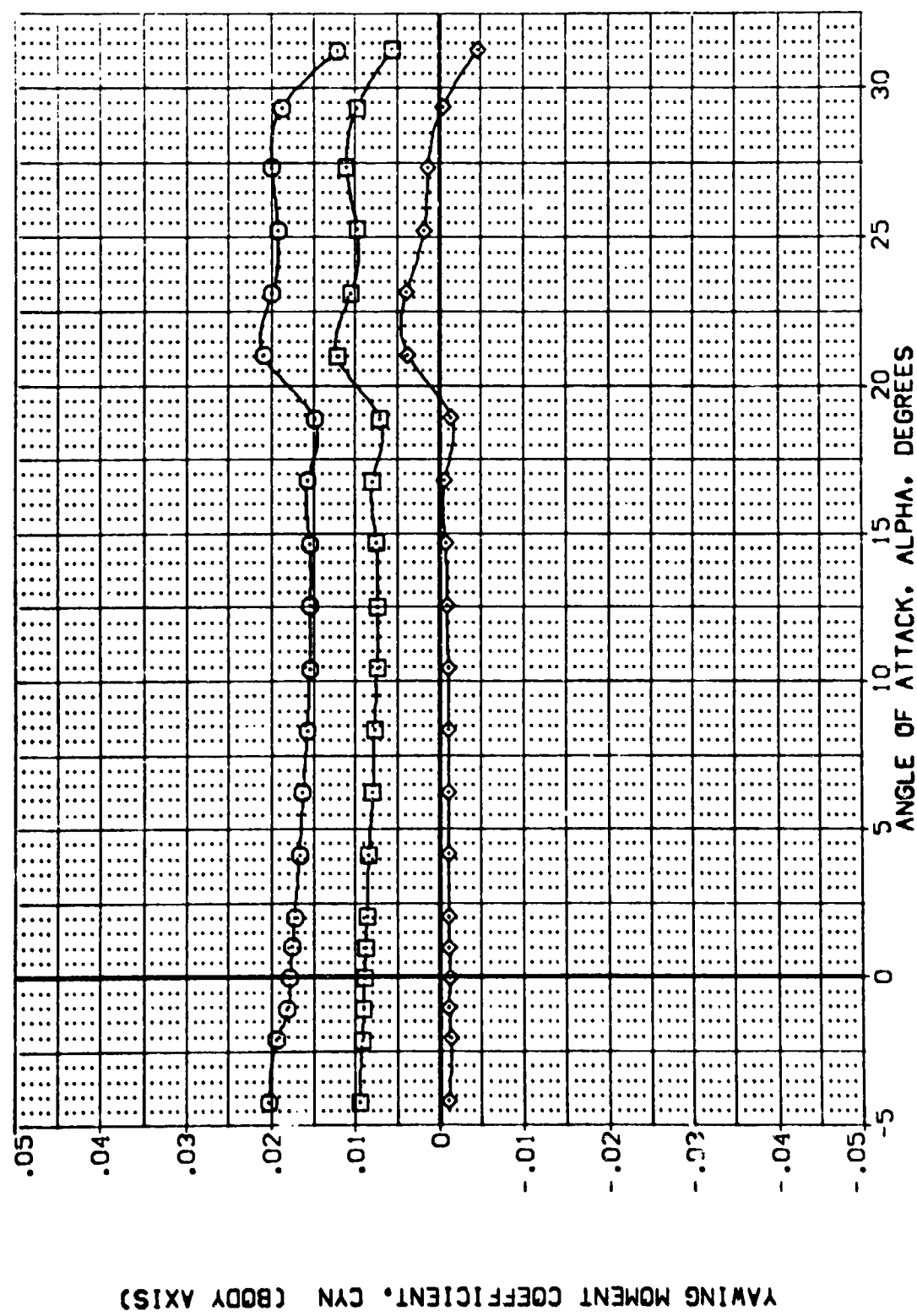
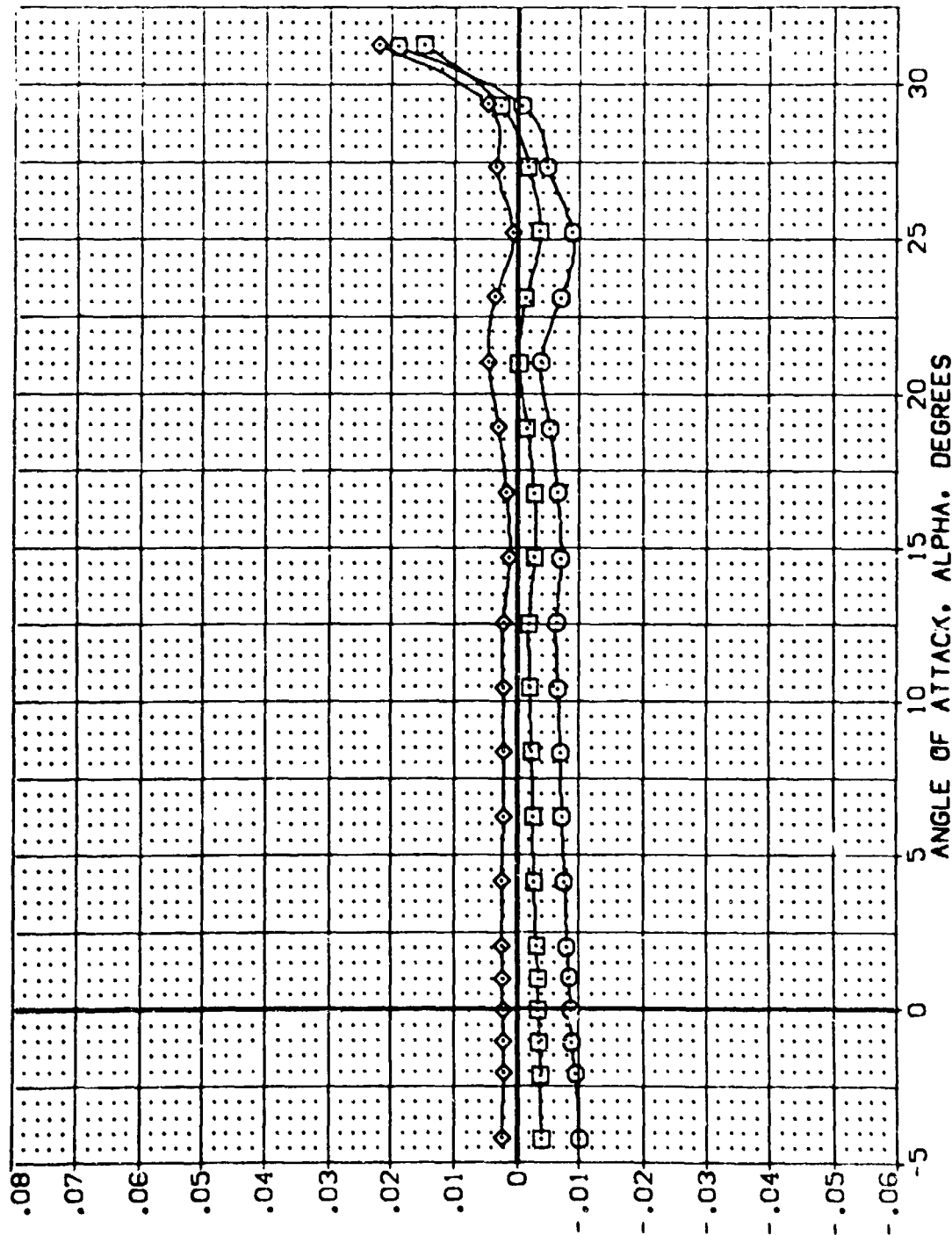


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE  
(A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R02355) 0A628 B26C9 M7F8 V116E 28V8PSX9  
 (R02345) 0A628 B26C9 M7F8 V116E 28V8PSX9  
 (R02343) 0A628 B26C9 M7F8 V116E 28V8PSX9

ELEVON SPOBRK BOFLAP RUDER REFERENCE INFORMATION  
 SREF 4.4119 SO.FT  
 LREF 19.2298 NC-FS  
 BRKF 37.9358 NC-FS  
 XMRP 43.5974 NC-FS  
 YMRP .0000 NC-FS  
 ZMRP 15.1875 NC-FS  
 SCALE .04CS SCALE



ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOON	BOFLAP	RUDDER	REFERENCE INFORMATION
(R02355)	QAS28 B26C9 MTF8 V11E28V8FSX9	.000	55.000	-12.00	-16.220	SREF 4.4119 SQ.FT.
(R02349)	QAS28 B26C9 MTF8 V11E28V8FSX9	.000	55.000	-12.00	-7.960	LREF 19.2298 INCHES
(R02343)	QAS28 B26C9 MTF8 V11E28V8FSX9	.000	55.000	-12.00	.000	BREF 37.9359 INCHES
						XREF 43.5974 INCHES
						YREF 15.0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405

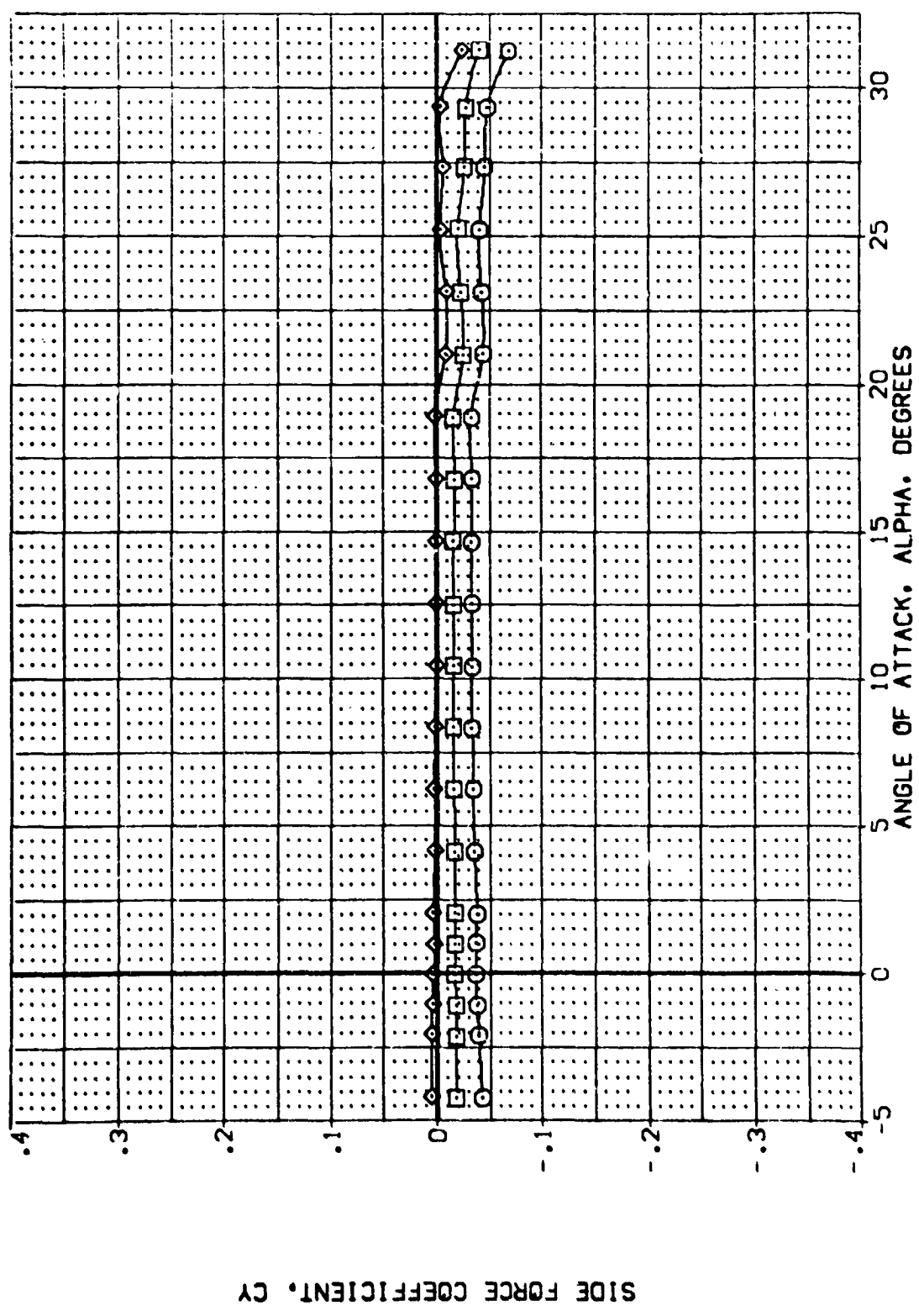


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

(A)MACH = .26

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z355)

SYMBOL	ALPHA	MACH	BD FLAP	SPDRK	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
○	.000				.260	DEL VON	.000	DATASET	RUDDER	DATASET	RUDDER	SREF	4.4113	50.47		
					-12.000	AIRLON	.000	20Z355	-16.220	20Z349	-7.960	LREF	19.2299	50.47		
					55.000	BETA	.000	20Z343	.000			BREF	37.9359	50.47		
												XREF	43.5874	50.47		
												YREF	.0000	50.47		
												ZREF	15.1875	50.47		
												SCALE	.0405	50.47		

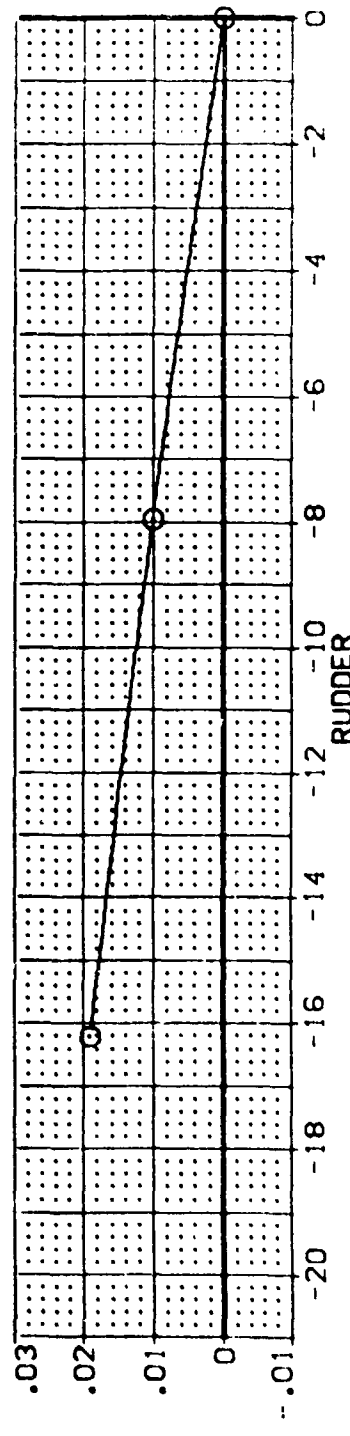
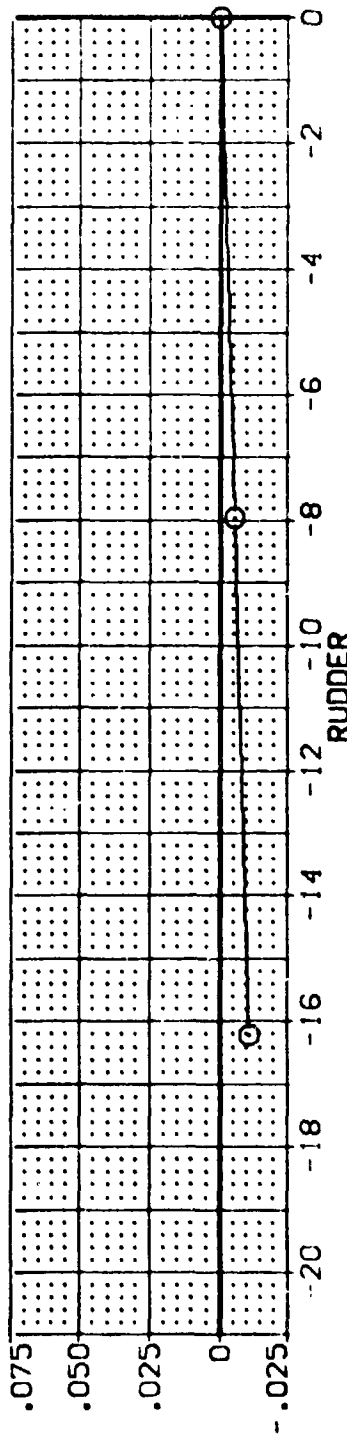
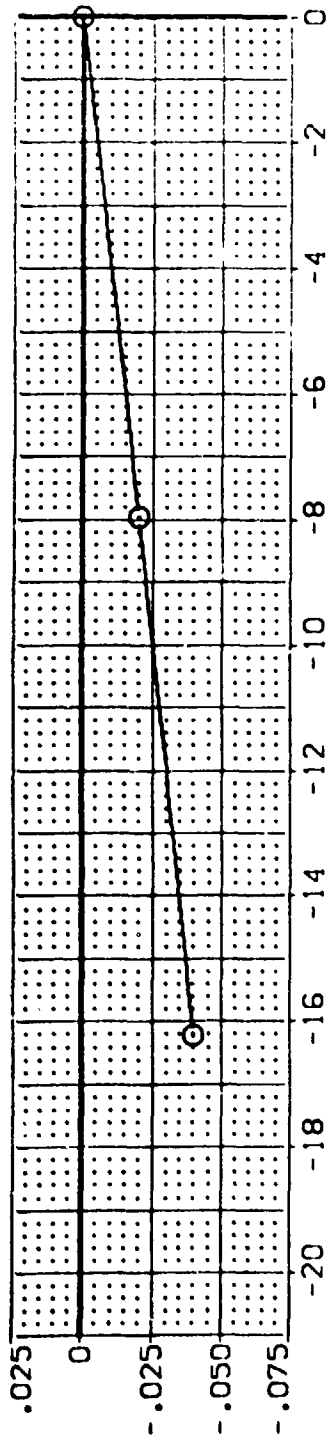


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

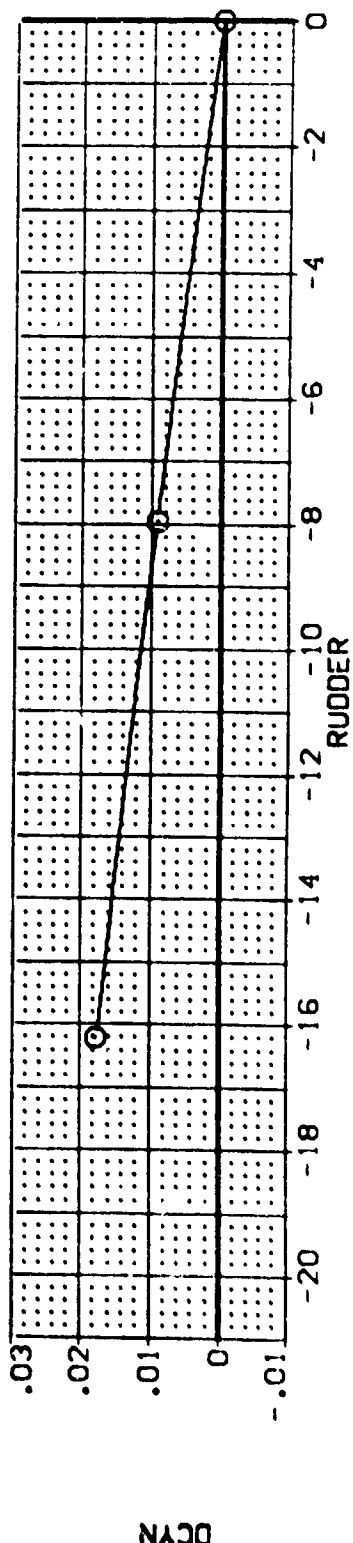
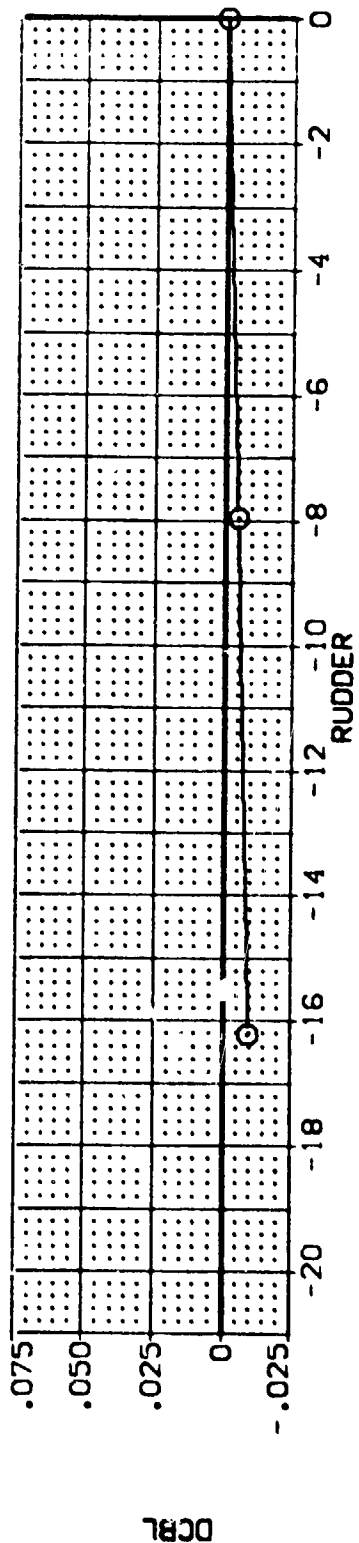
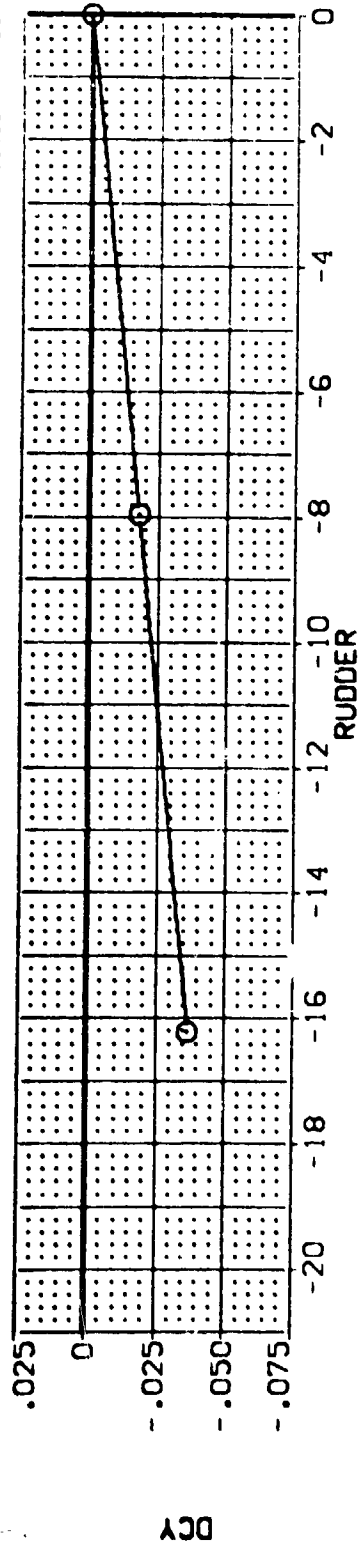
[illegible]

FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z355)

0  
5780

ALPHA  
10.000

ALPHA  
10.000

MACH  
BUFLAP  
SPCGRK

MACH  
BUFLAP  
SPCGRK

MACH  
BUFLAP  
SPCGRK

MACH  
BUFLAP  
SPCGRK

MACH  
BUFLAP  
SPCGRK

MACH  
BUFLAP  
SPCGRK

MACH  
BUFLAP  
SPDRK

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

PARAMETRIC VALUES	
.260	DELTON
-12.000	AILRON
55.000	BETA

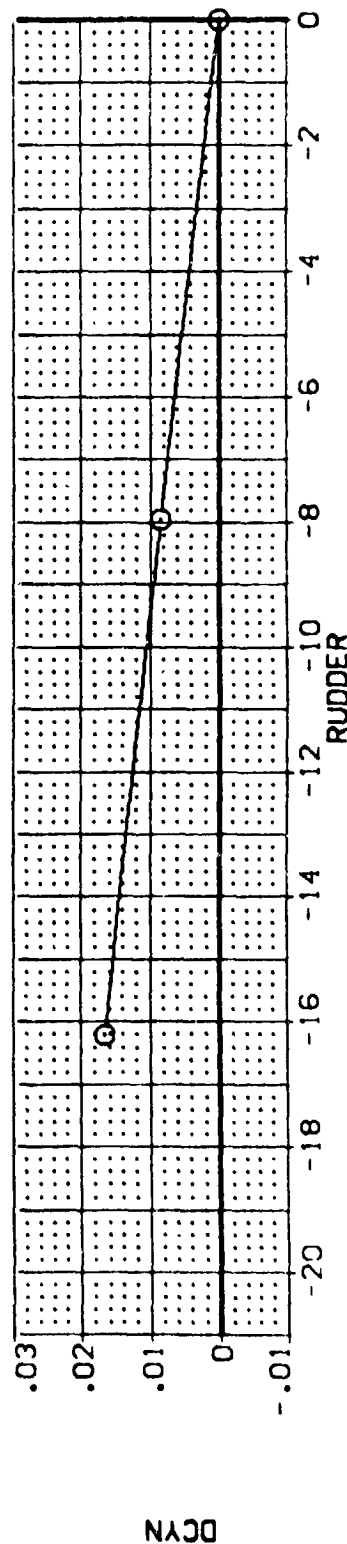
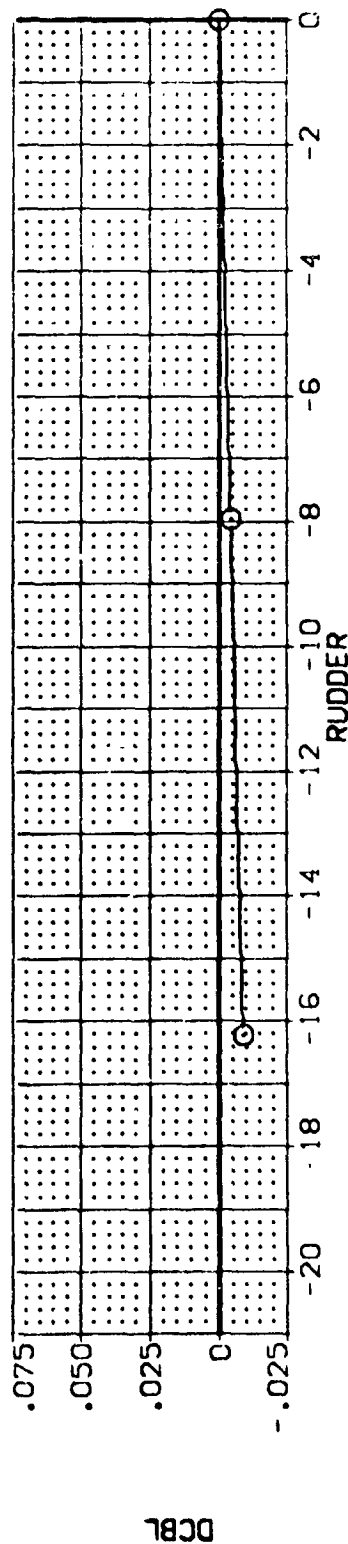
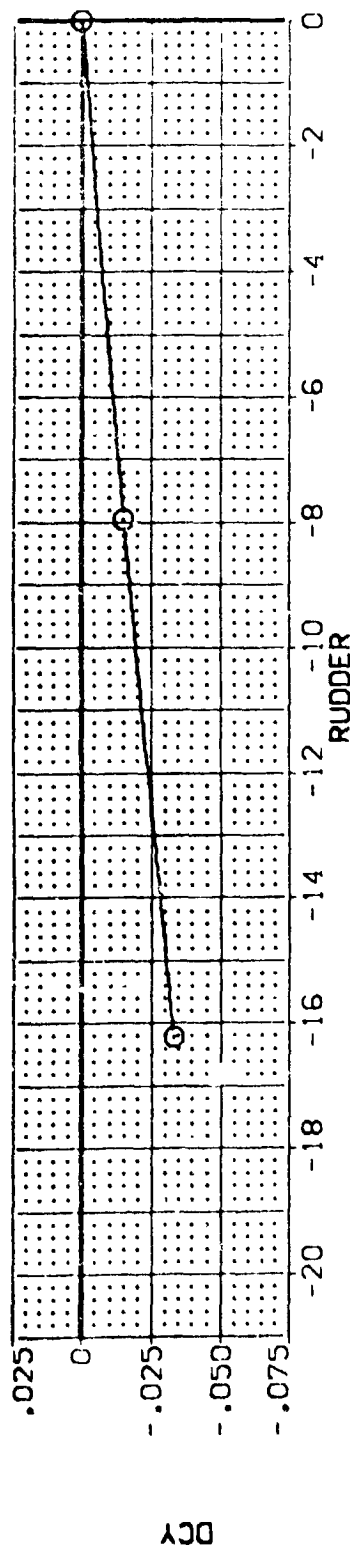


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE



0A628 B26C9 M7F8 W116E28V8R5X9 (20Z355)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
SYMBOL	ALPHA	MACH	DELTA	RUDDER	RUDDER	SREF	SO.FT.
0	15.000	BDF LAP	.000	20Z355	-7.960	LREF	INCHES
		SPOBRK	.000	20Z343		BREF	INCHES
			.000			XMRP	INCHES
						YMRP	INCHES
						ZMRP	INCHES
						SCALE	SCALE

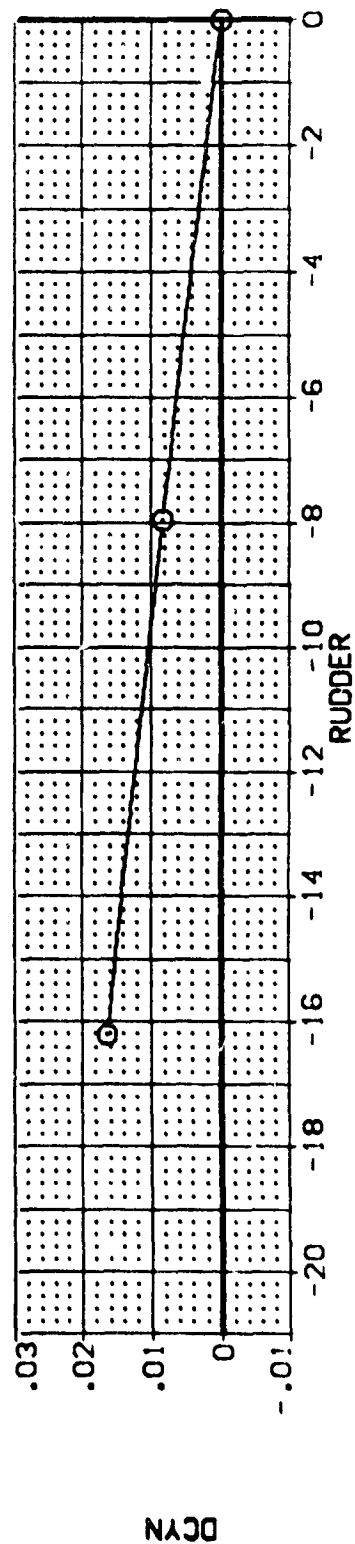
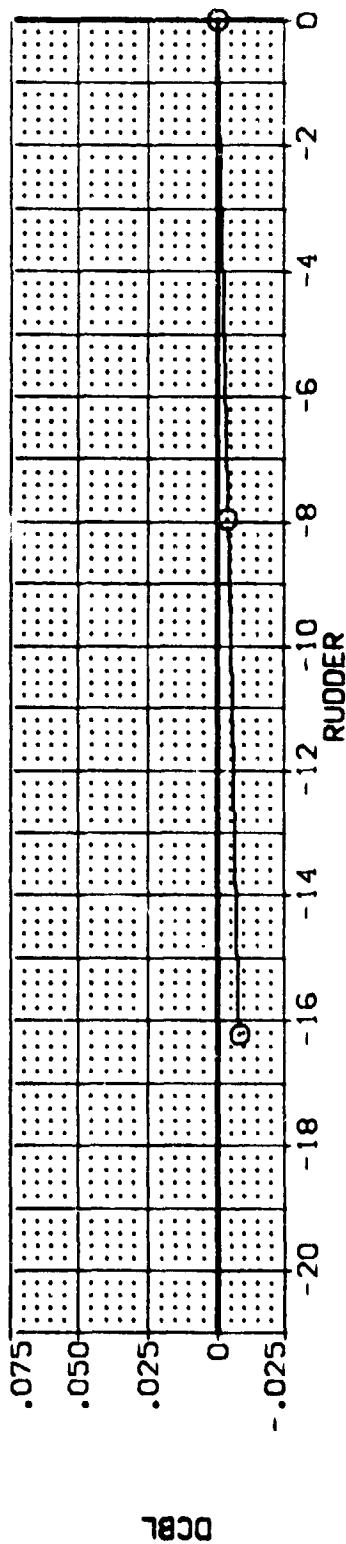
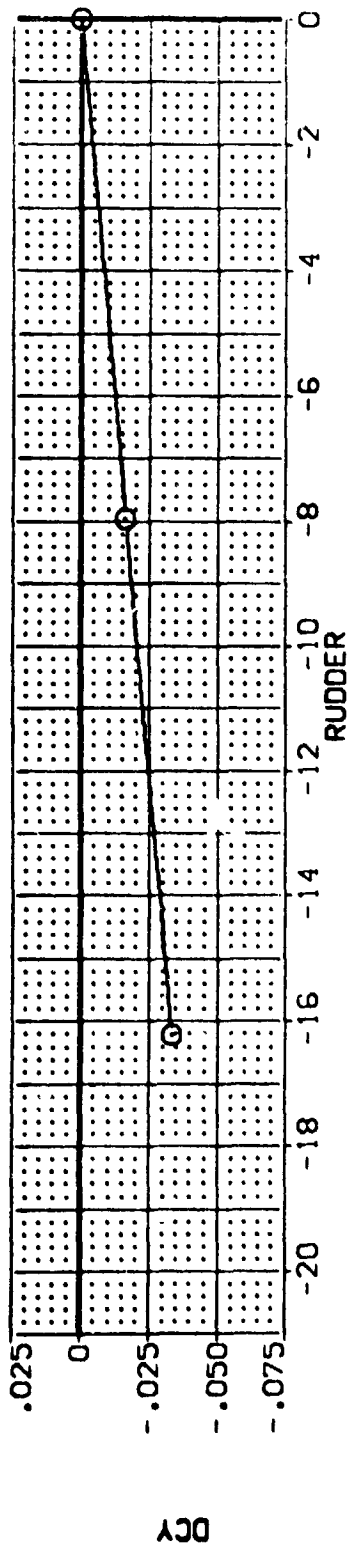


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

(20Z355)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	RUDDER	RUDDER	REFERENCE INFORMATION
○	20.000	.260	DELTA	.000	20Z343	20Z343	4.4119
		.12.000	AILRON	.000	20Z355	20Z343	19.2299
		SPDRK	BETA	.000	20Z343	20Z343	37.9359
							43.5974
							0.0000
							15.1875
							SCALE
							.0405

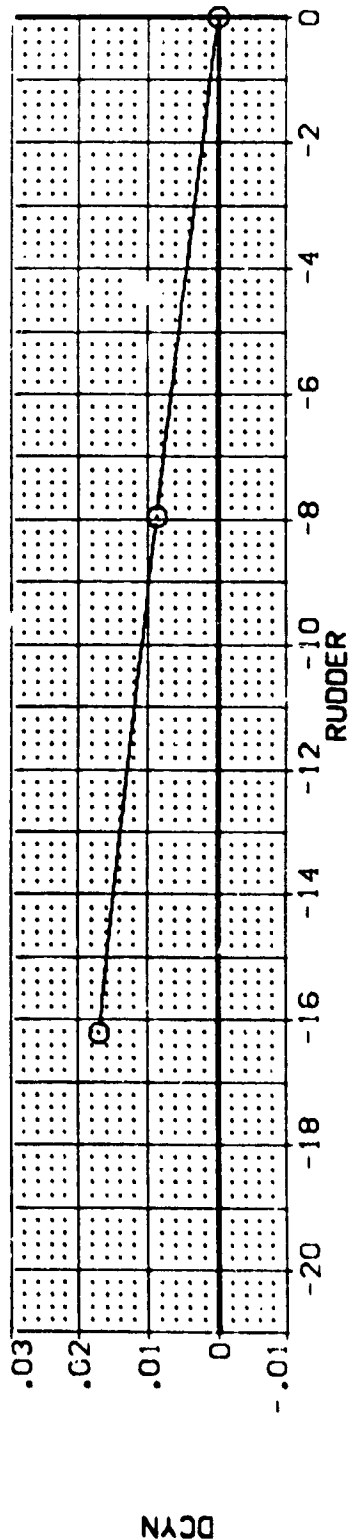
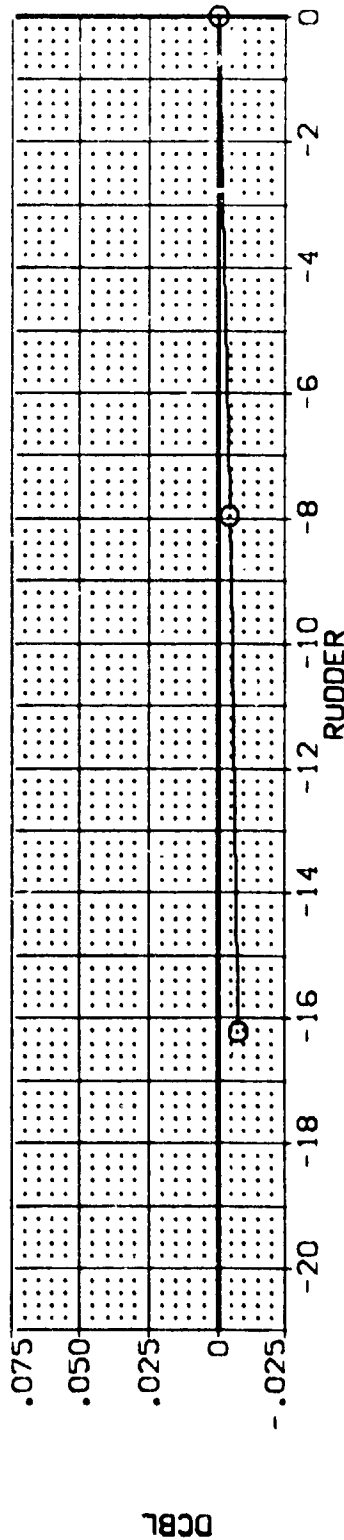
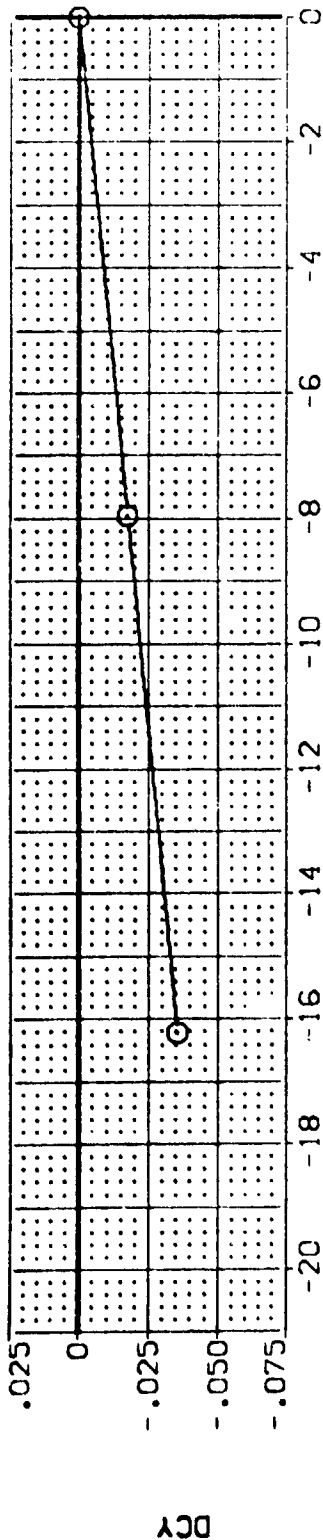


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z355)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DELTA	RUDDER	RUDDER	SREF	SO.F1
25.000	0.260	DELTA	-16.270	-7.960	19.2298	INCHES
	BDFLAP	AILRON	.000		37.9359	INCHES
	SPOBRK	BETA	.000		43.5974	INCHES
					.0000	INCHES
					15.1675	INCHES
					.0405	SCALE

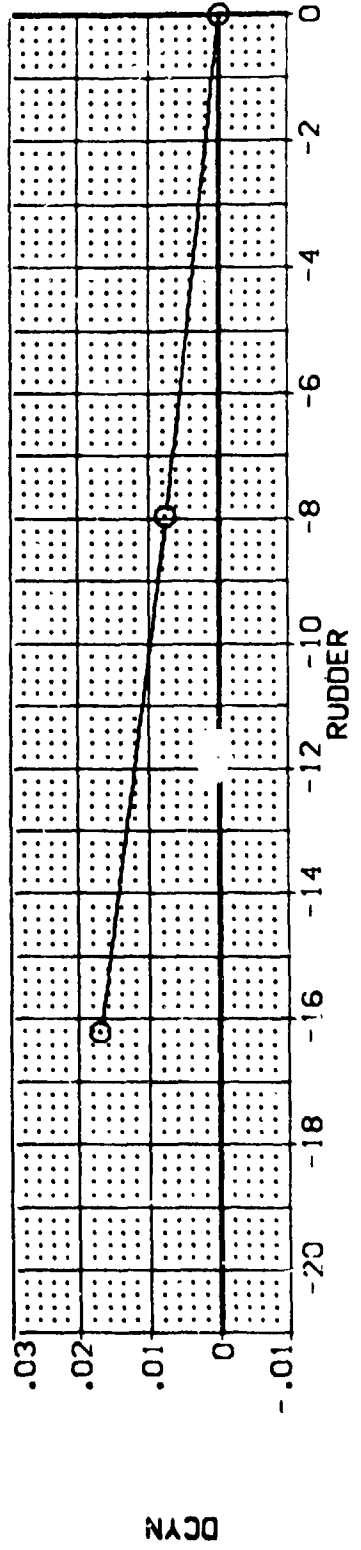
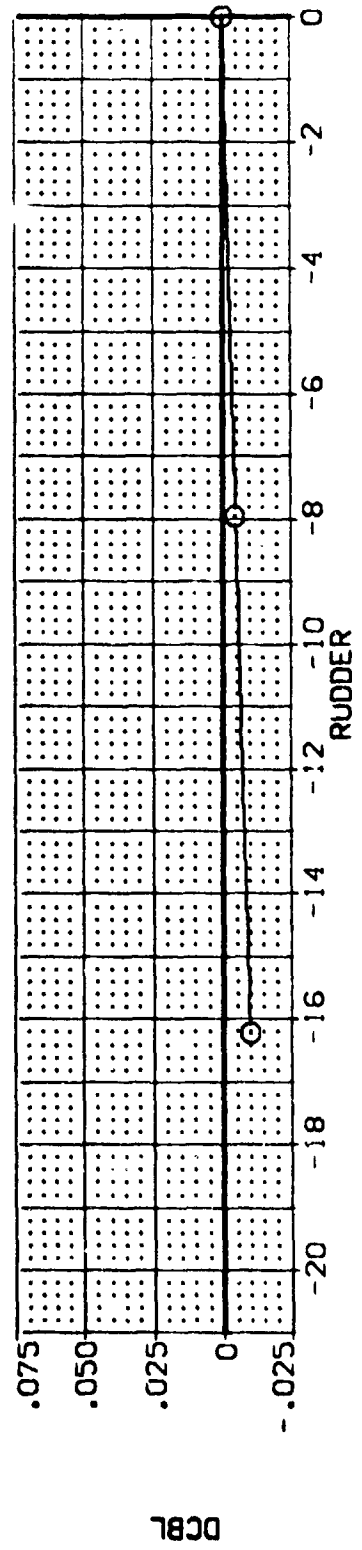
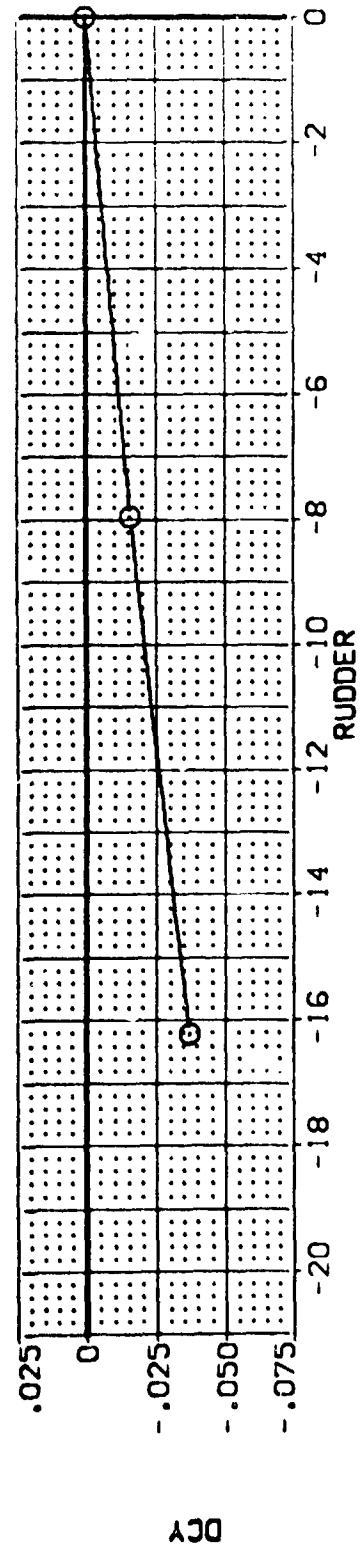


FIG 62 RUDDER EFFECTIVENESS, 55 DEC. FLARE



(20Z355)

W116E28V8R5X9

M7F8

B26C9

0A62B

0A62B

REFERENCE INFORMATION  
 4.4119  
 19.2299  
 37.9359  
 43.5974  
 .0000  
 15.16/5  
 .0405  
 SCALE

DATA SOURCE  
 RUDDER  
 -16.220  
 .000

PARAMETRIC VALUES  
 DELVON  
 .260  
 AILRON  
 .12.000  
 BETA  
 55.000

DATA SET  
 20Z355  
 20Z343

DATA SET  
 20Z355  
 20Z343

DATA SET  
 20Z355  
 20Z343

DATA SET  
 20Z355  
 20Z343

DATA SET  
 20Z355  
 20Z343

DATA SET  
 20Z355  
 20Z343

DATA SET  
 20Z355  
 20Z343

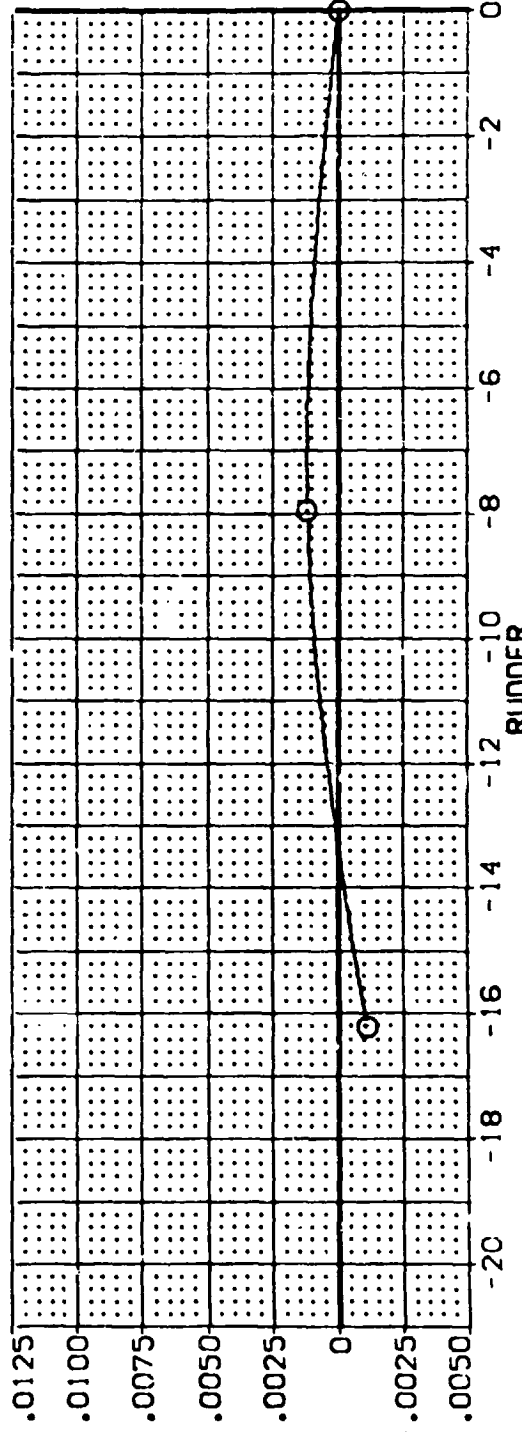
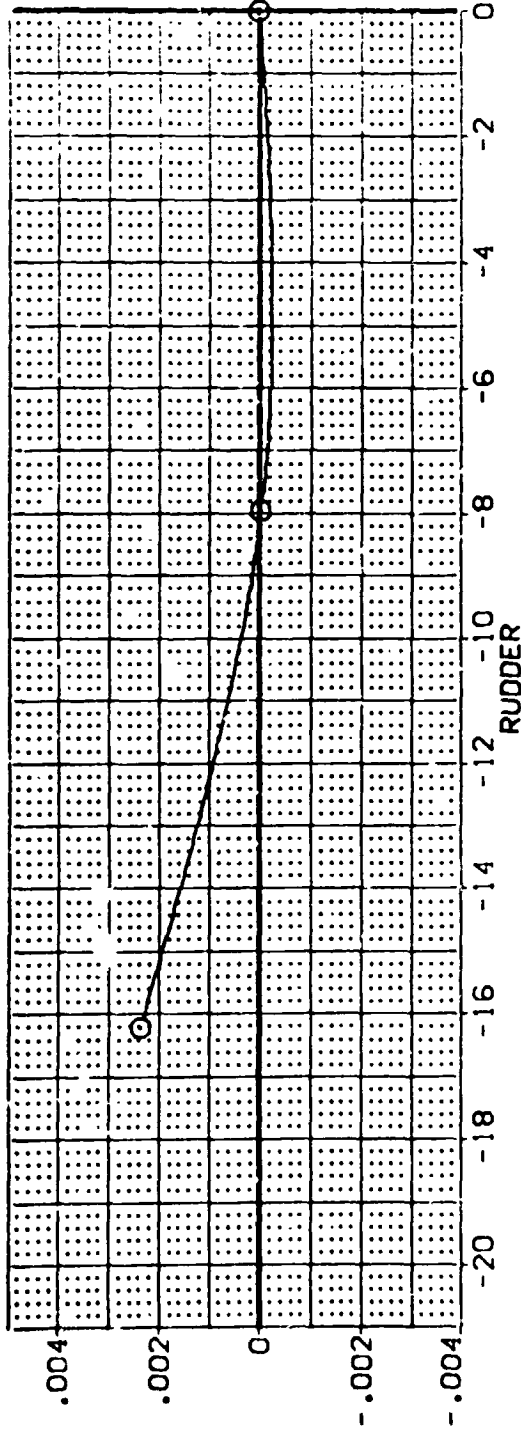


FIG 62 RUDDER EFFECTIVENESS, '55 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z355)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0	5.000	BDFLAP	.260	DELTA	.000	RUDDER	SREF	SC.F.T.
		SPOBRK	-12.000	AILRON	.000	20Z349	LREF	19.2298
			55.000	BETA	.000	20Z343	BREF	37.9359
					.000		XREF	43.5874
							YREF	15.0000
							ZREF	15.1875
							SCALE	.0405

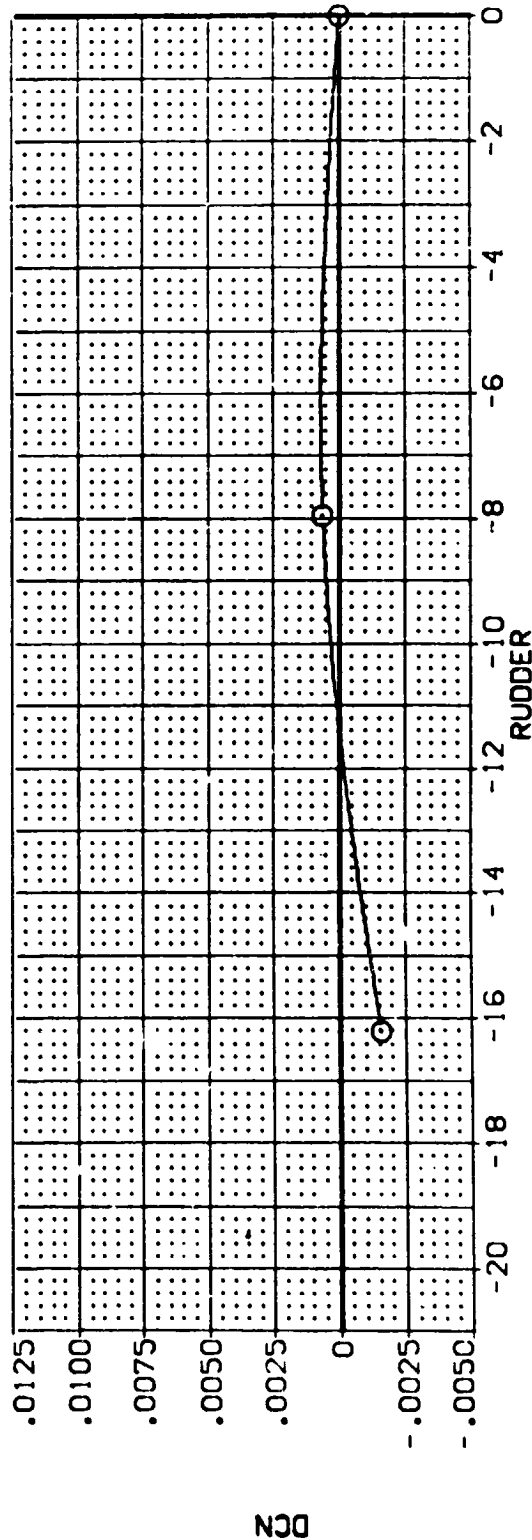
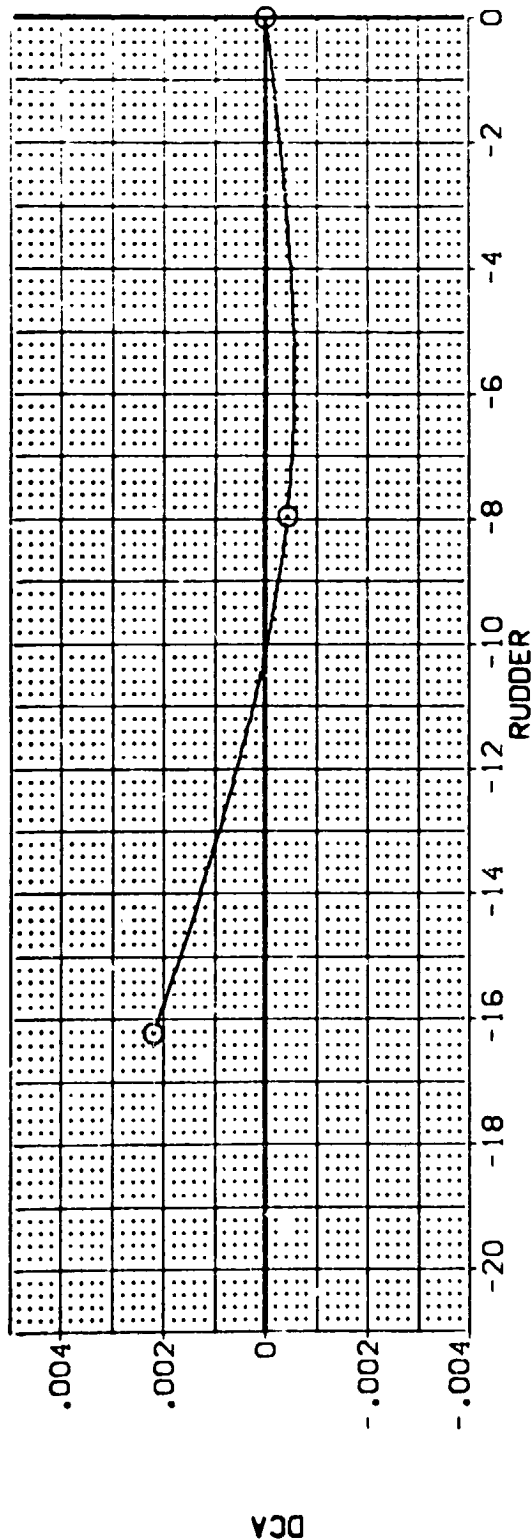


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

(20Z355)

**SYMBOL** **O**

ALPHA  
10.000

## How

1

### PARAMETRIC VALUES

VALUES

VALUES

VALUES

**DATA SOURCE**

DATA SC

8

8

### REFERENCE INFORMATION

23

23

23

23

23

23

23

30

30

30

30

30

30

30

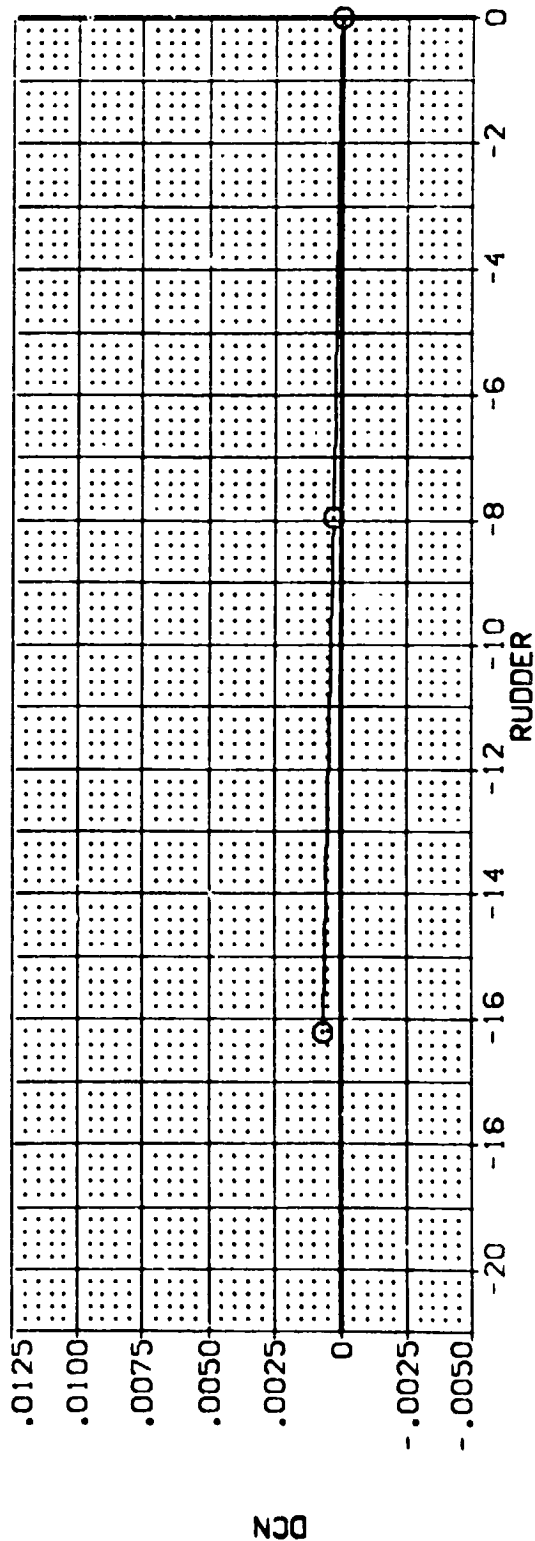
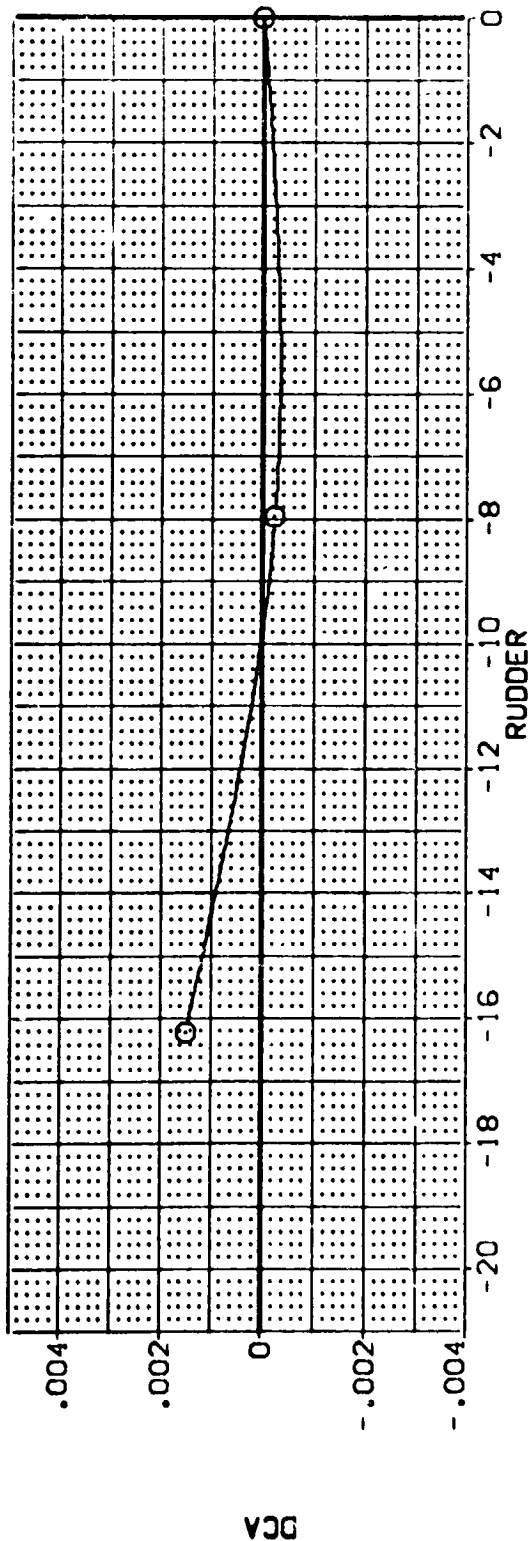


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

(202355)

W116E28V8R5X9

M7F8

B26C9

0A62B

SYMBOL  
O

ALPHA  
15.000

PARAMETRIC VALUES  
MACH  
BOFLAP  
SPDRK

DELTA  
AILRON  
BETA

.260  
-12.000  
55.000

.000  
.000  
.000

DATA SOURCE  
RUDDER  
-16.220  
.000

RUDDER  
-7.960  
202349  
202343  
202343

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE

4.4119  
19.2292  
37.9359  
43.5974  
1.0000  
15.1875  
.0405

INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
INCHES  
SCALE

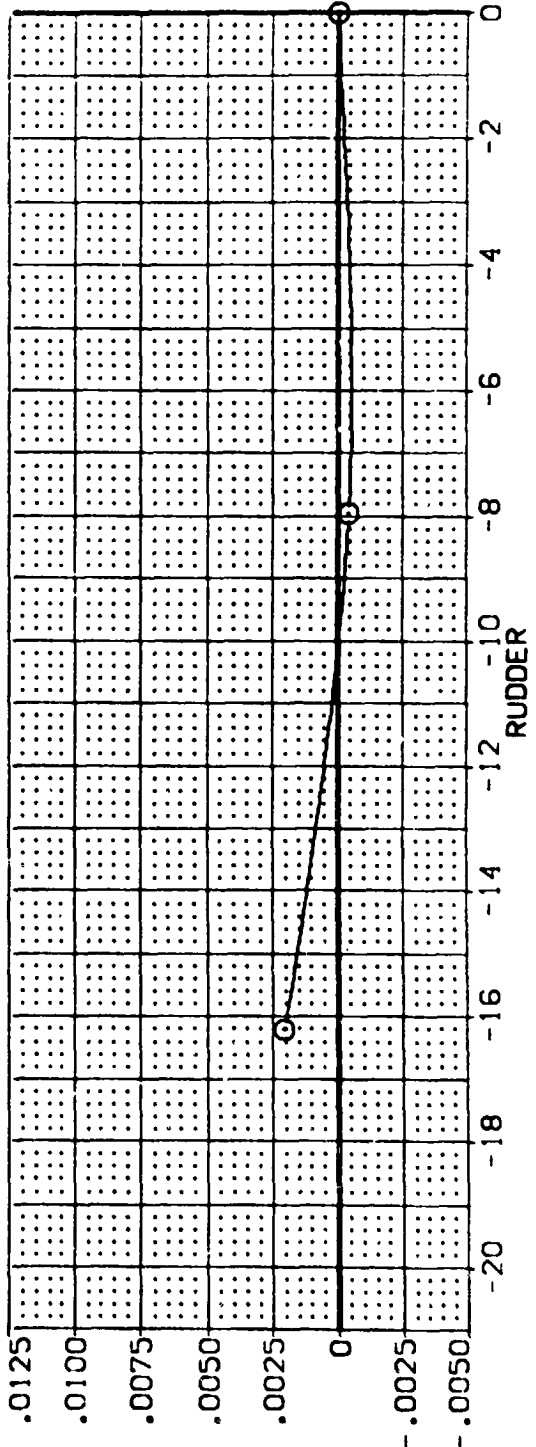
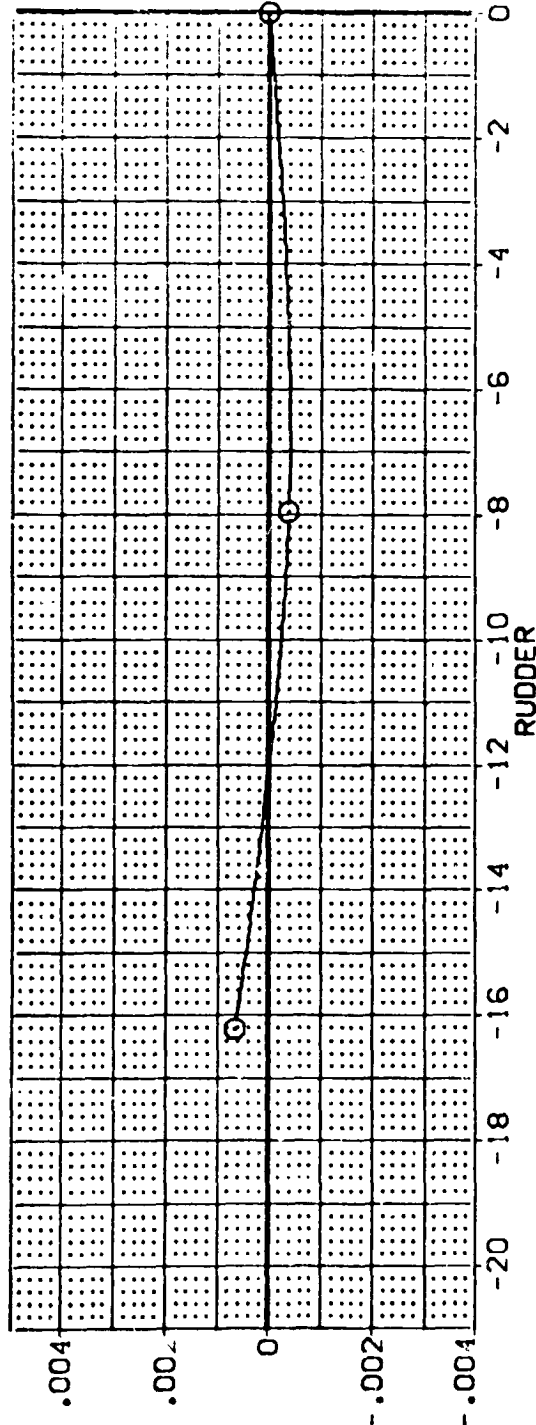


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE



(20Z355)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL ALPHA 20.000  
O

PARAMETRIC VALUES  
MACH .760 DELVON  
BOFLAP -12.000 AILRON  
SPDRK 55.000 BETA

DATA SOURCE  
RUDDER -16.220  
DATASET 20Z349  
R-7.960

REFERENCE INFORMATION  
SO.FT 4.4119  
INC-ES 19.2299  
INC-ES 37.9359  
INC-ES 43.5874  
INC-ES .0000  
INC-ES 15.1675  
SCALE .0405

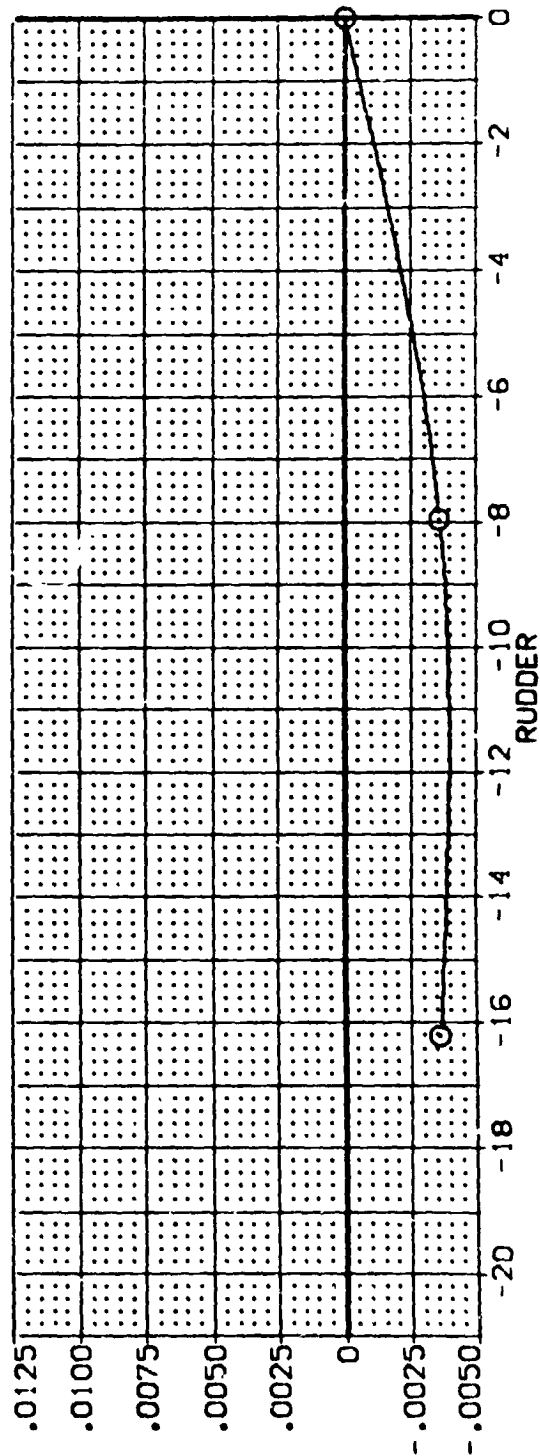
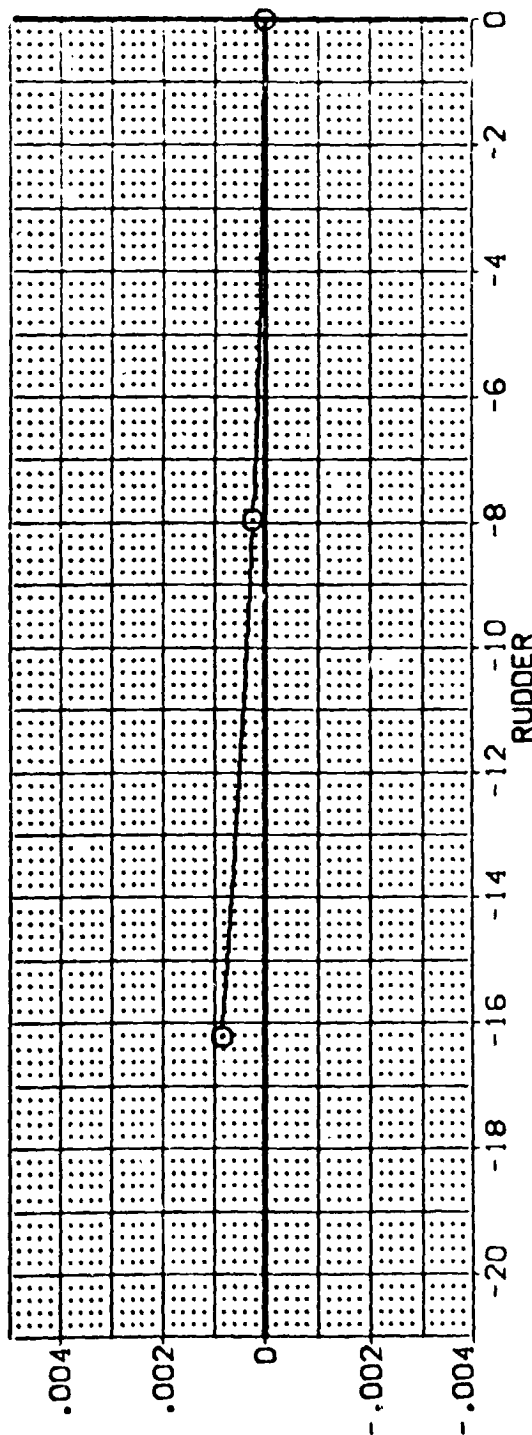


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z355)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	25.000	80CLAP	.260 DELVON	.000 DATASET	SO.FT. 4.4119
		SPDRK	-12.000 AILRON	.000 20Z355	INC.FTS 19.2299
			55.000 BETA	.000 20Z343	INC.FTS 37.9359
				.000	INC.FTS 43.5974
					INC.FTS .0000
					INC.FTS 15.1875
					SCALE .0405

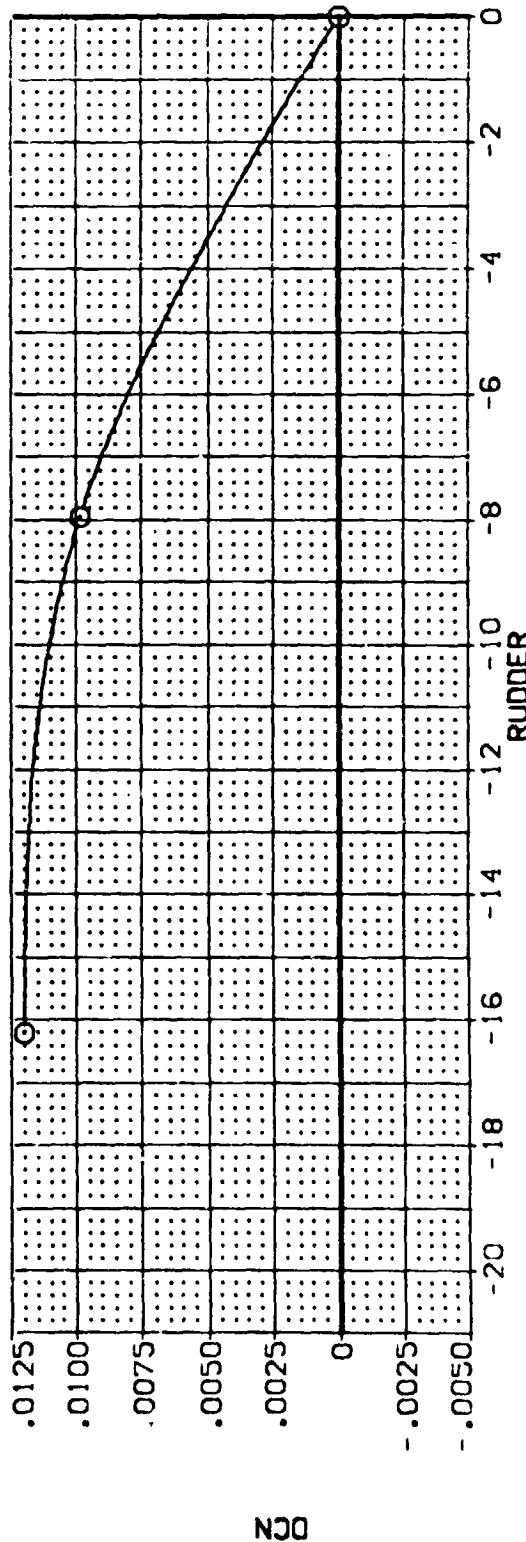
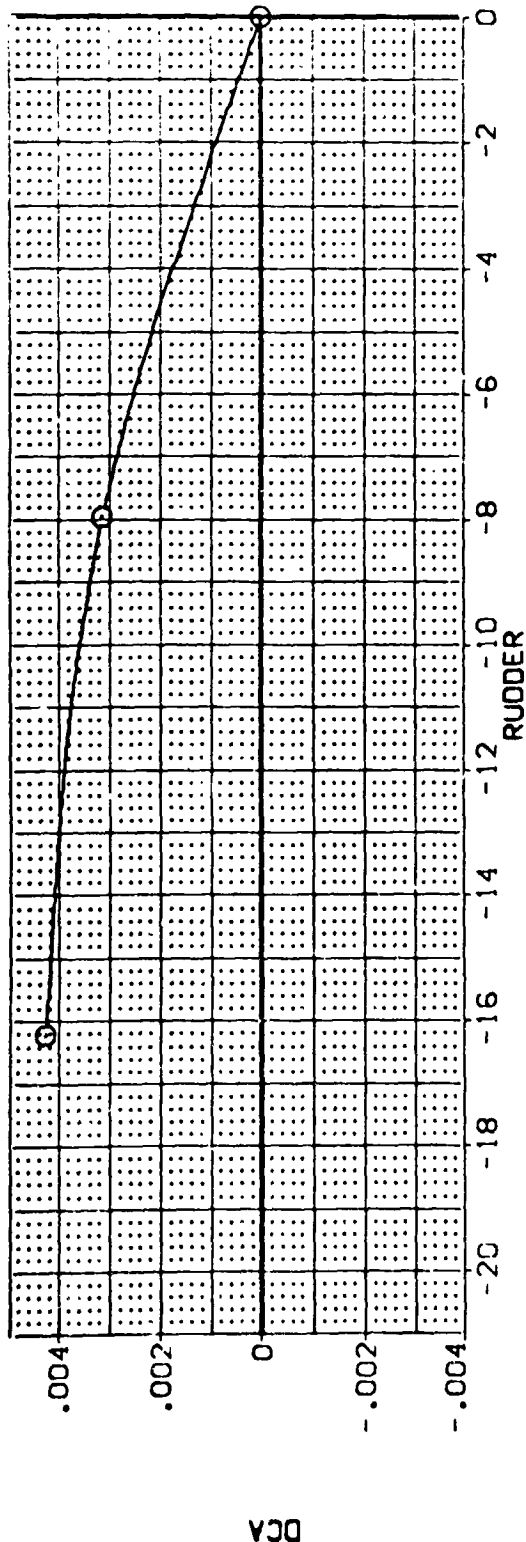


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

0A62B B26C9 M7F8 W116E28V8R5X3 (20Z355)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	RUDDER	SREF	REFERENCE INFORMATION
0	30.000		.260 DELVON	RUDDER	20Z349	-7.960	4.4119	SO.FT.
			-12.000 AILRON	-1S.220			19.2299	INCHES
			55.000 BETA	.000			37.9359	INCHES
							43.5971	INCHES
							.0000	INCHES
							15.1875	INCHES
							.0405	SCALE

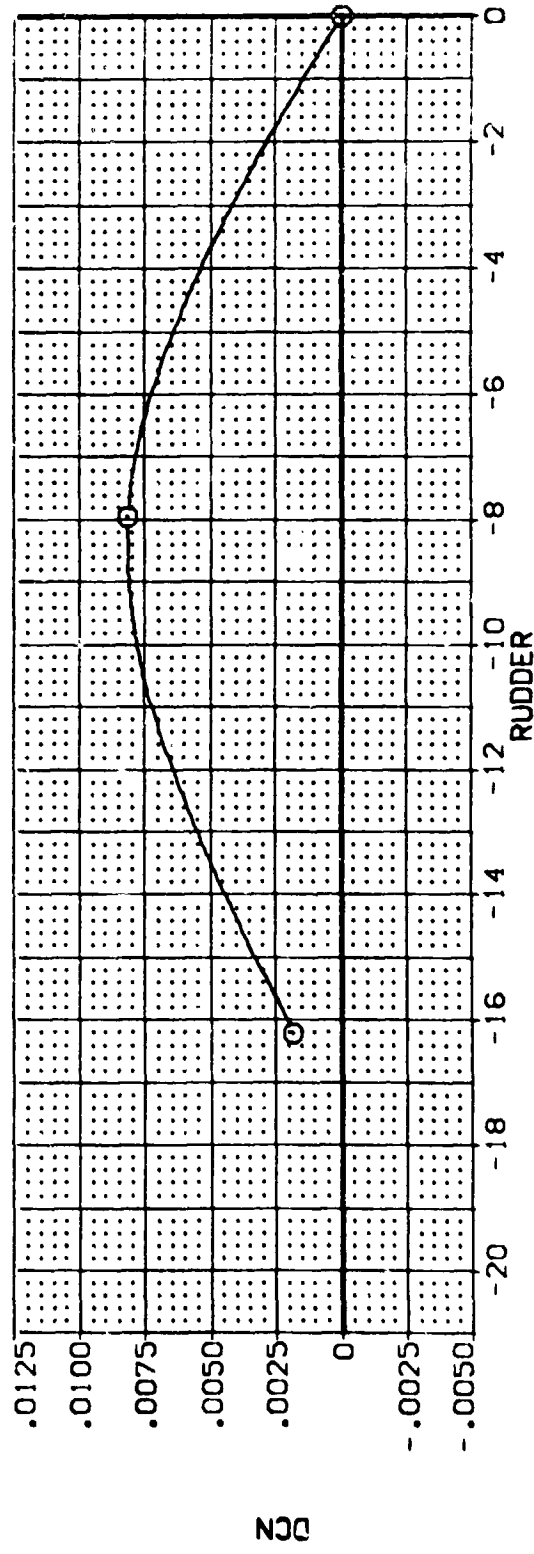
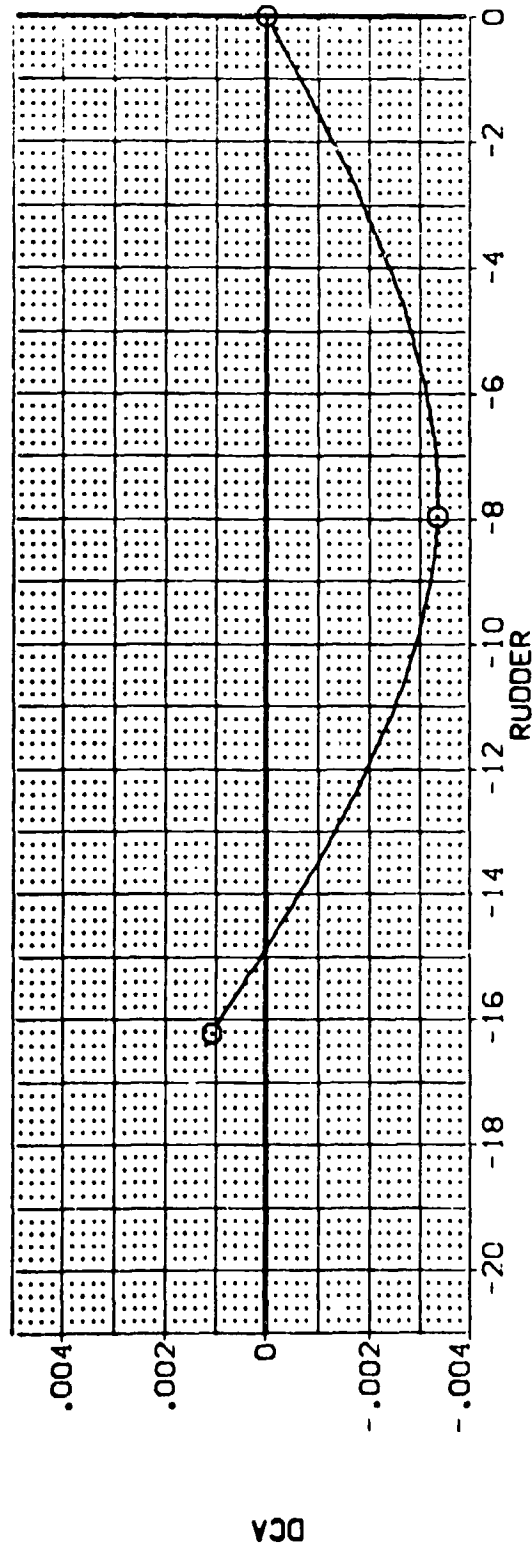


FIG 62 RUDDER EFFECTIVENESS, 55 DEG. FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRBK	AILRON	REFERENCE INFORMATION
(RDZ344)	DA628 B26C9 M7F8 V116E28V8F5X9	.000	.000	55.000	.000	SREF 4.4119 SO.FT
(RDZ345)	DA628 B26C9 M7F8 V116E28V8F5X9	5.000	.000	55.000	.000	LREF 19.2298 LG.FT
(RDZ346)	DA628 B26C9 M7F8 V116E28V8F5X9	10.000	.000	55.000	.000	BREF 37.9359 BG.FT
(RDZ347)	DA628 B26C9 M7F8 V116E28V8F5X9	15.000	.000	55.000	.000	YMRP 43.5574 YG.FT
(RDZ348)	DA628 B26C9 M7F8 V116E28V8F5X9	20.000	.000	55.000	.000	ZMRP .0000 ZG.FT
						SCALE 15.1875

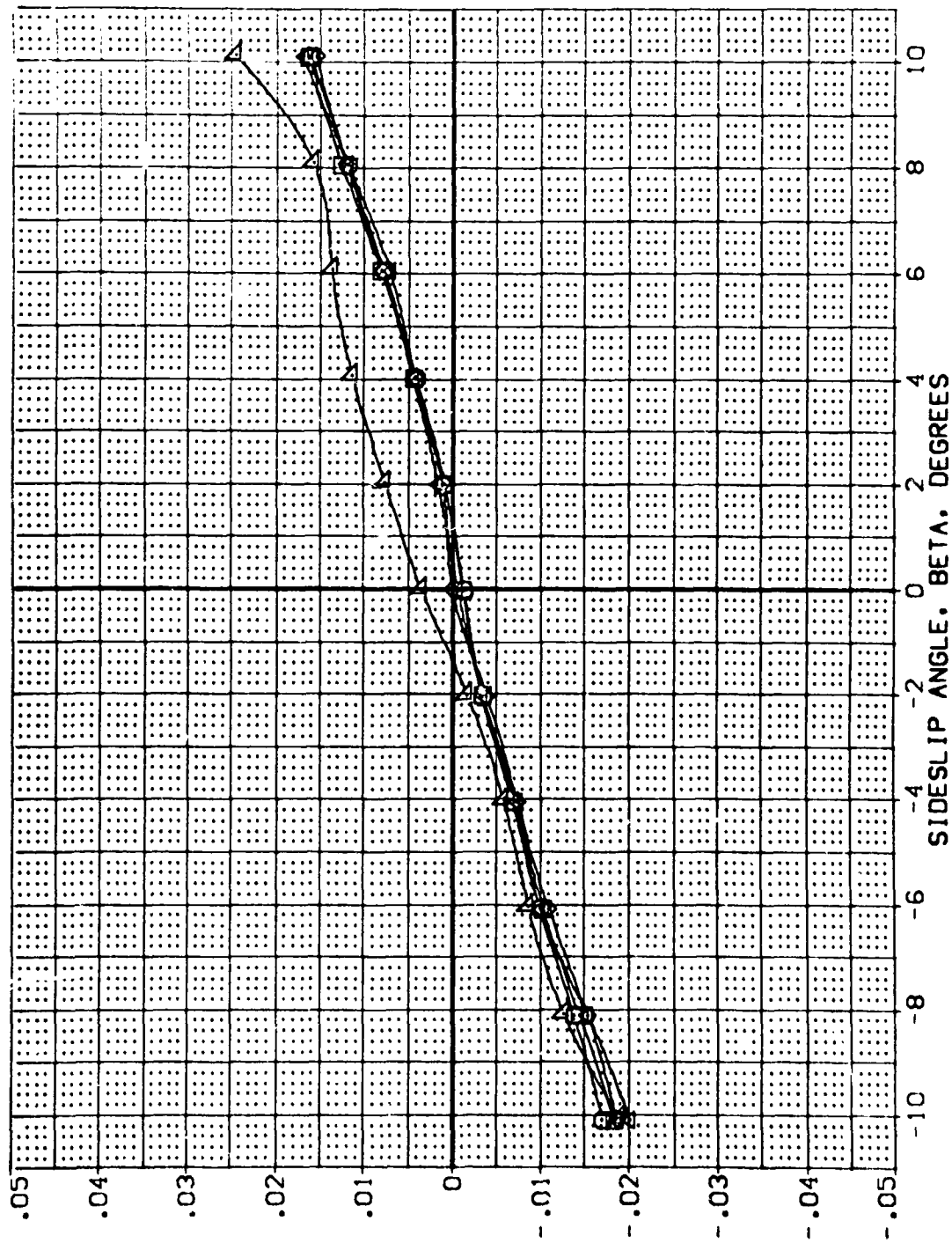


FIG 63 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.55 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRBK	AILRON	REFERENCE INFORMATION
(R0Z344)	DA628 B26C9 M7F8 V116E28V8FSX9	.000	.000	55.000	.000	SREF 4.4119 SQ.FT.
(R0Z345)	DA628 B26C9 M7F8 V116E28V8FSX9	5.000	.000	55.000	.000	LREF 19.2298 INCHES
(R0Z346)	DA628 B26C9 M7F8 V116E28V8FSX9	10.000	.000	55.000	.000	BREF 37.9359 INCHES
(R0Z347)	DA628 B26C9 M7F8 V116E28V8FSX9	15.000	.000	55.000	.000	XMRP 43.5974 INCHES
(R0Z348)	DA628 B26C9 M7F8 V116E28V8FSX9	20.000	.000	55.000	.000	VMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

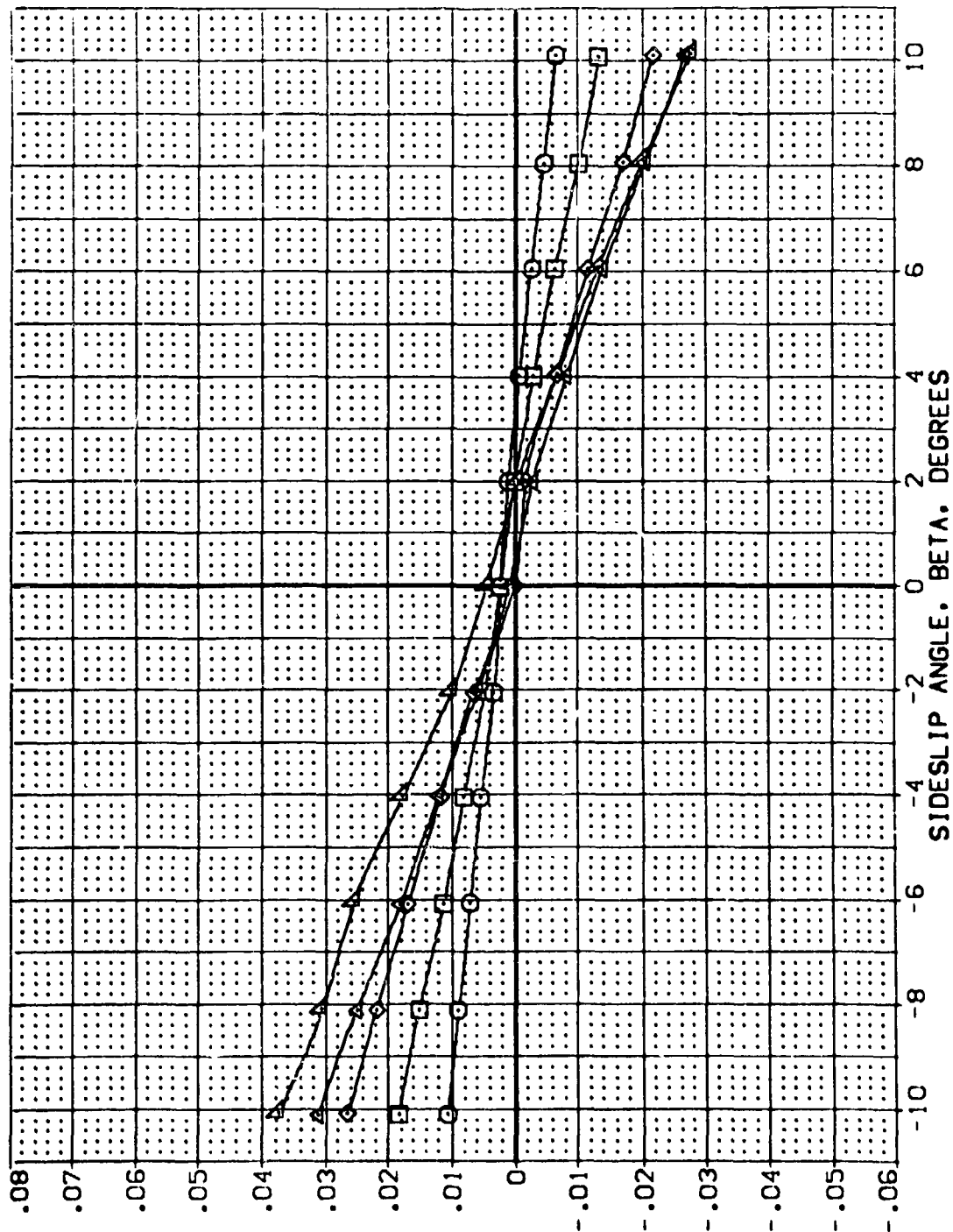


FIG 63 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.55 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPODBK	AILRON	REFERENCE INFORMATION	SCALE
(R02344)	DA628 B76C9 M7F8 V116E28V85SX9	.000	.000	55.000	.000	SREF	4.4119
(R02345)	DA628 B76C9 M7F8 V116E28V85SX9	5.000	.000	55.000	.000	LREF	19.2299
(R02346)	DA628 B76C9 M7F8 V116E28V85SX9	10.000	.000	55.000	.000	BREF	37.9359
(R02347)	DA628 B76C9 M7F8 V116E28V85SX9	15.000	.000	55.000	.000	XMRP	43.5874
(R02348)	DA628 B76C9 M7F8 V116E28V85SX9	20.000	.000	55.000	.000	YMRP	.0000
						ZMRP	15.1875
						SCALE	.04CS
							INC-FS
							SCALE

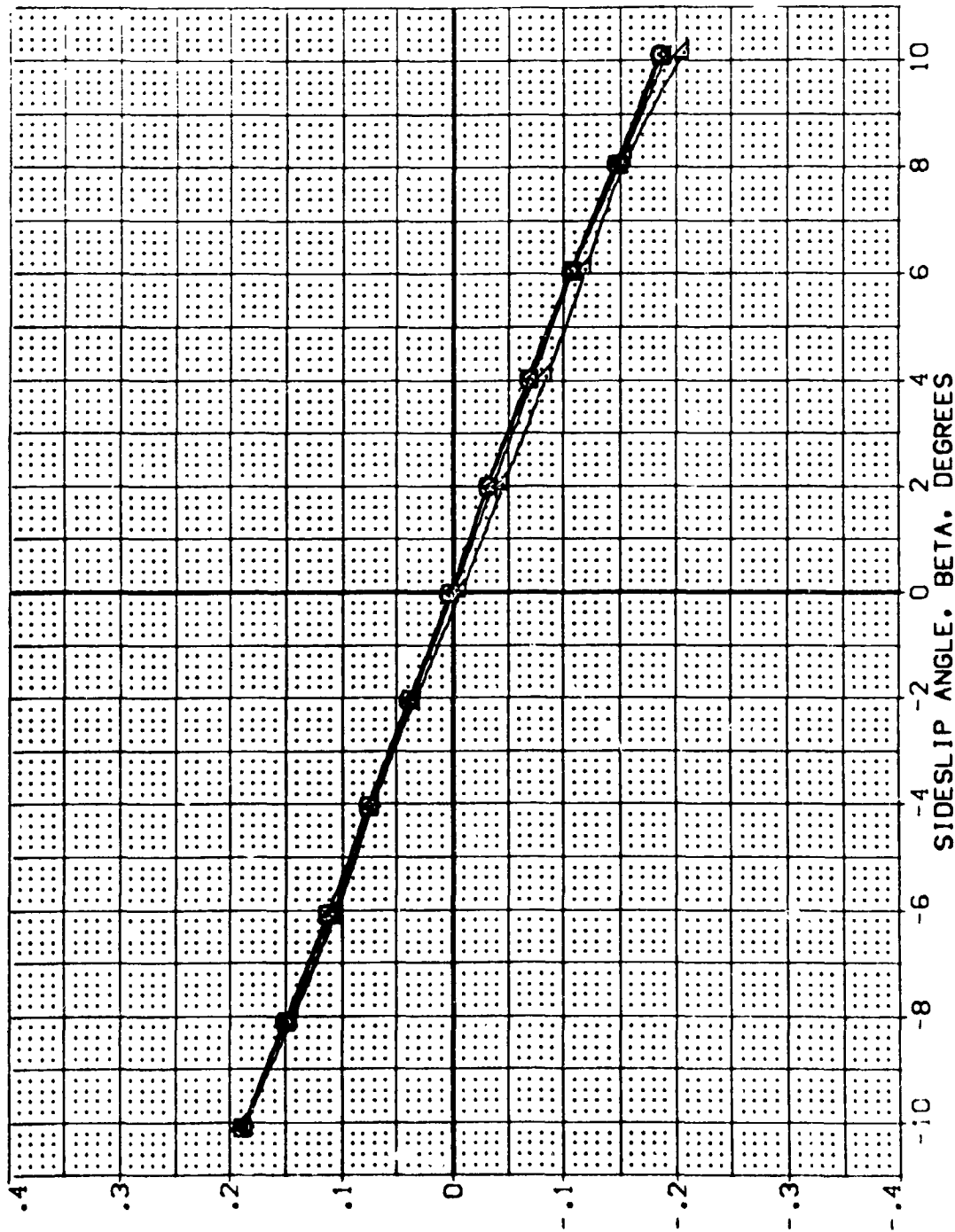


FIG 63 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.55 DEG FLARE

(A)MACH = .26

0A62B B26C9 M7F8 W116E28V8R5X9 (CDZ344)  
 SYMBOL RUDDER .000  
 MACH .260 BOFLAP -12.000  
 ELEVON .000 AILRON .000  
 SPOBRK 55.000  
 REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0405

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

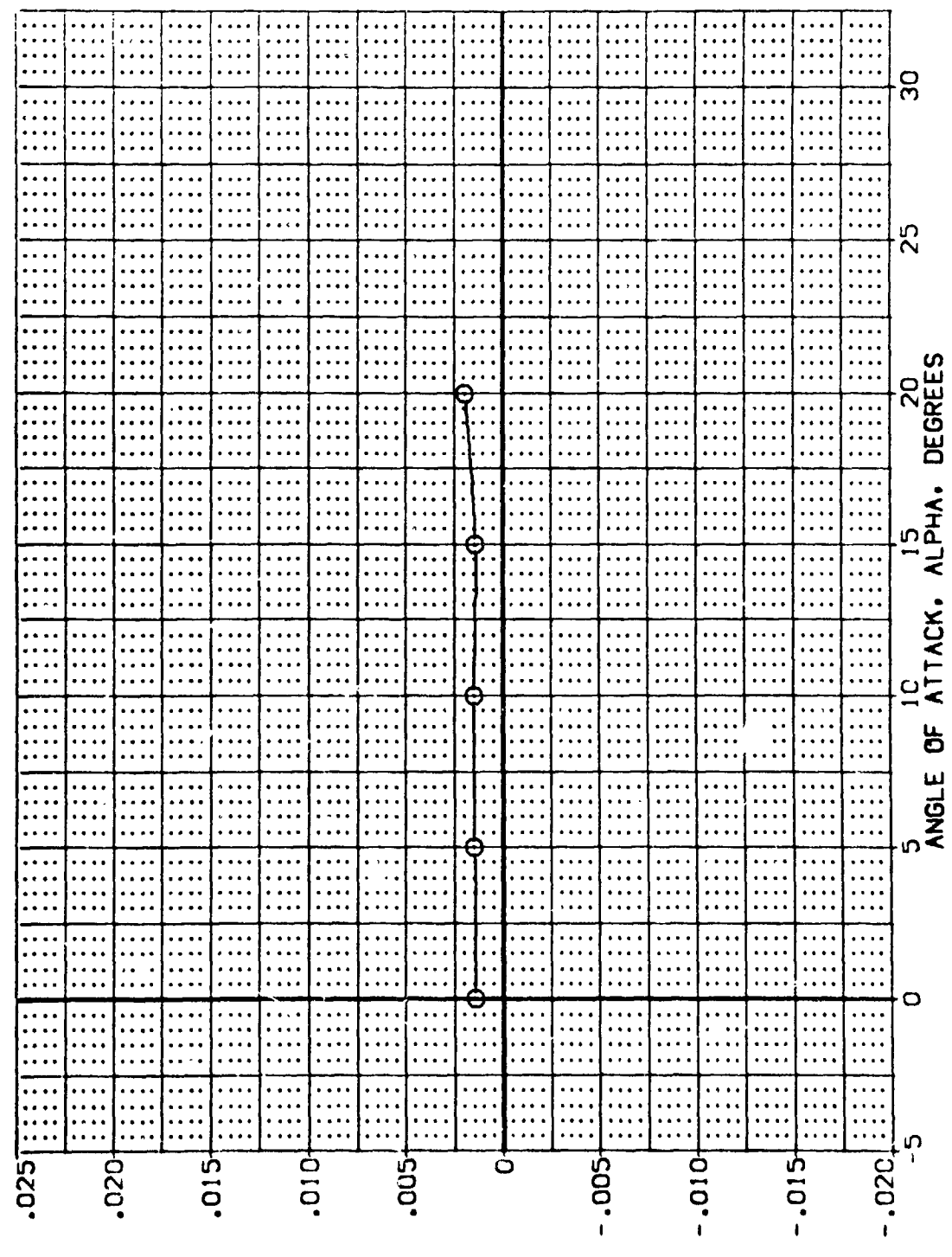


FIG 63 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.55 DEG FLARE

JA62B B26C9 M7F8 W116E28V8R5X9 (CDZ344)

SYMBOL  
O

RUDDER

.000

MACH  
ELEVON  
SPDRK

.260  
.000  
55.000

PARAMETRIC VALUES

BDFLAP -12.000  
AILRON .000

REFERENCE INFORMATION

SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5874 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

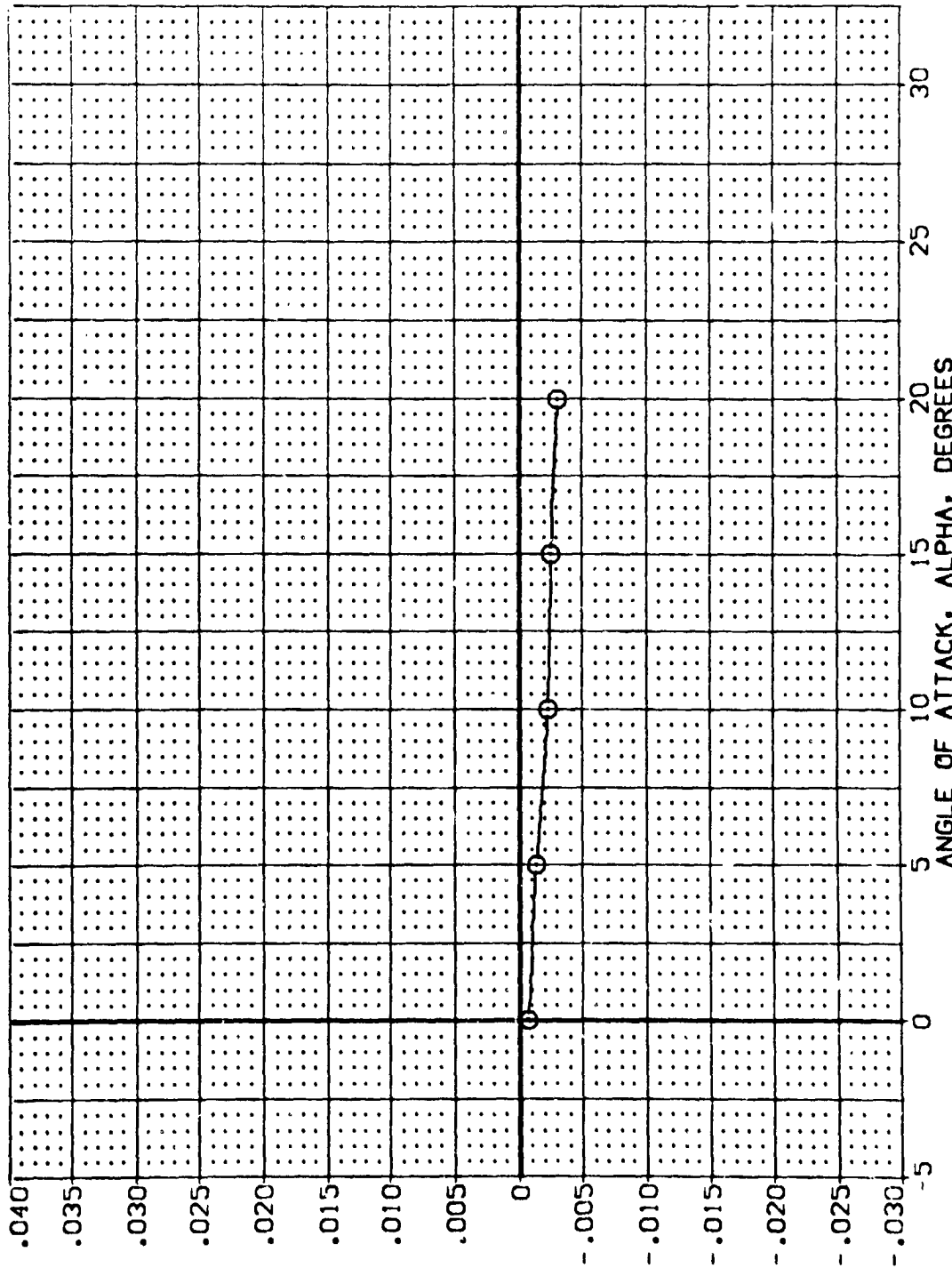


FIG 63 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 55 DEG FLARE



SYMBOL  
○

RUDDER  
.000

0A628 B26C9 M7F8 W116E28V8R5X9  
PARAMETRIC VALUES  
MACH .260 BDFLAP -12.000  
ELEVON .000 AILRON .000  
SPOBRK 55.000

(CDZ344)

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0425

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

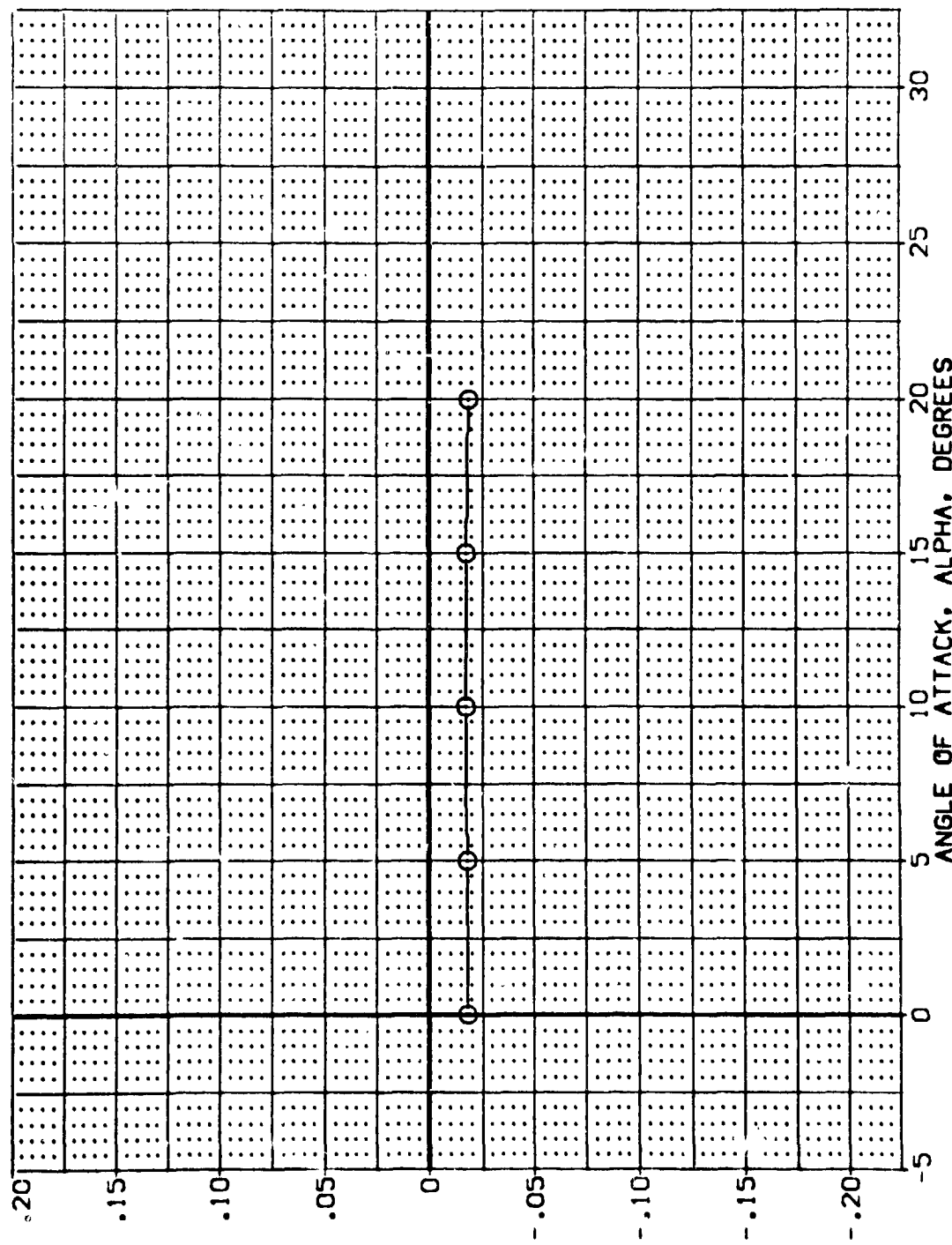


FIG 63 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 55 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOILER	AILRON	REFERENCE INFORMATION
[R02350]	DA628 B26C9 M7F8 V116E28V8PSX9	.000	-7.960	55.000	.000	SREF 4.4119 50.175
[R02351]	DA628 B26C9 M7F8 V116E28V8PSX9	5.000	-7.960	55.000	.000	LREF 19.2799 INC-ES
[R02352]	DA628 B26C9 M7F8 V116E28V8PSX9	10.000	-7.960	55.000	.000	BREF 37.9359 INC-ES
[R02353]	DA628 B26C9 M7F8 V116E28V8PSX9	15.000	-7.960	55.000	.000	XREF 43.5974 INC-ES
[R02354]	DA628 B26C9 M7F8 V116E28V8PSX9	20.000	-7.960	55.000	.000	YREF 15.1875 INC-ES
						ZREF 15.1875 INC-ES
						SCALE

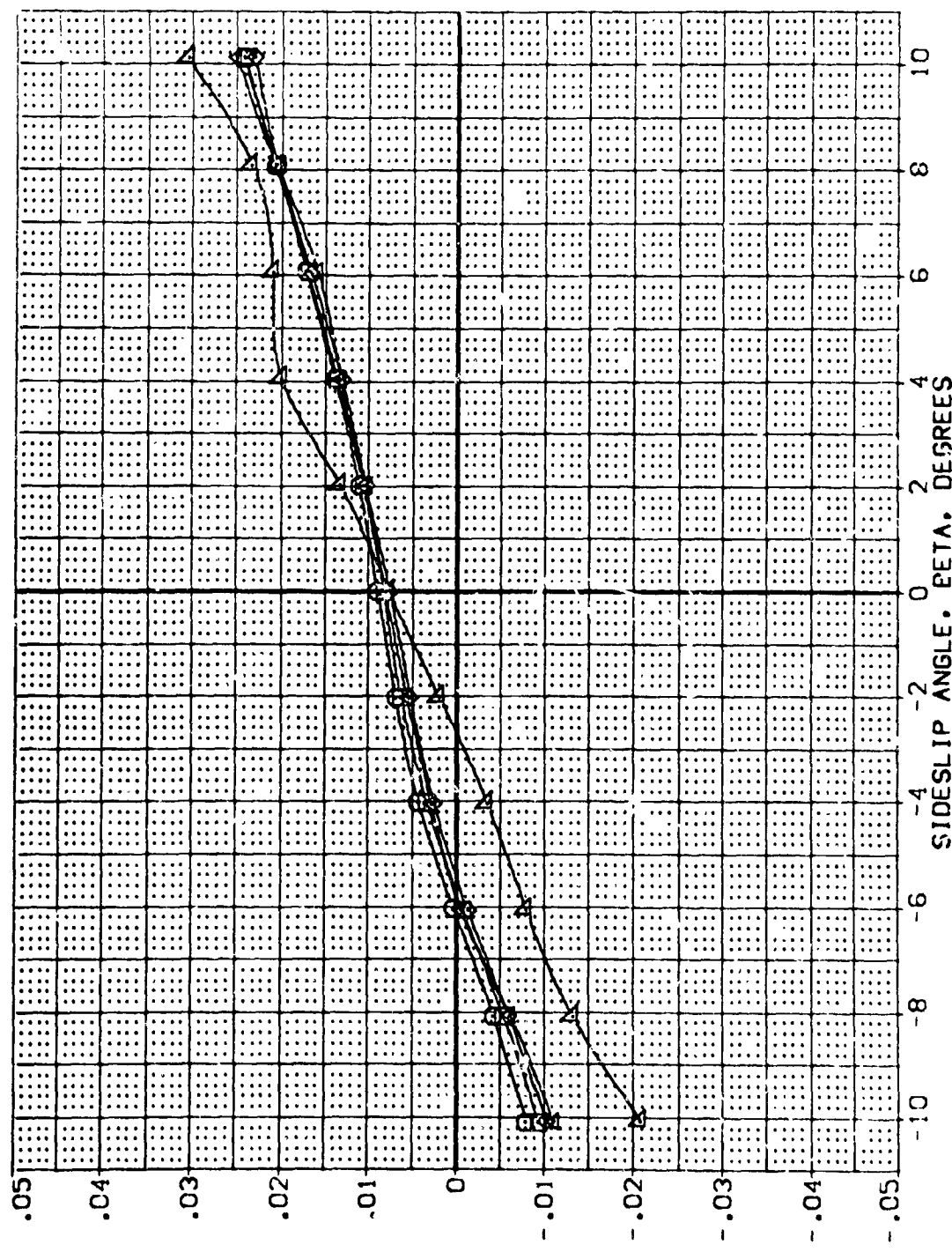


FIG 64 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 55 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SAJBRK	AILRON	REFERENCE INFORMATION
[R02350]	0A628 B76C9 M7F8 V116E28V8R5X9	.000	-7.960	55.000	.000	SREF 4.4119 SO.F1
[R02351]	0A628 B76C9 M7F8 V116E28V8R5X9	5.000	-7.960	55.000	.000	BR.F 19.2799 INC.F.S
[R02352]	0A628 B76C9 M7F8 V116E28V8R5X9	10.000	-7.960	55.000	.000	BR.F 37.9259 INC.F.S
[R02353]	0A628 B76C9 M7F8 V116E28V8R5X9	15.000	-7.960	55.000	.000	XMRP 43.5574 INC.F.S
[R02354]	0A628 B76C9 M7F8 V116E28V8R5X9	20.000	-7.960	55.000	.000	YMRP .5000 INC.F.S
						ZMRP 15.1875 INC.F.S
						SCALE .0405

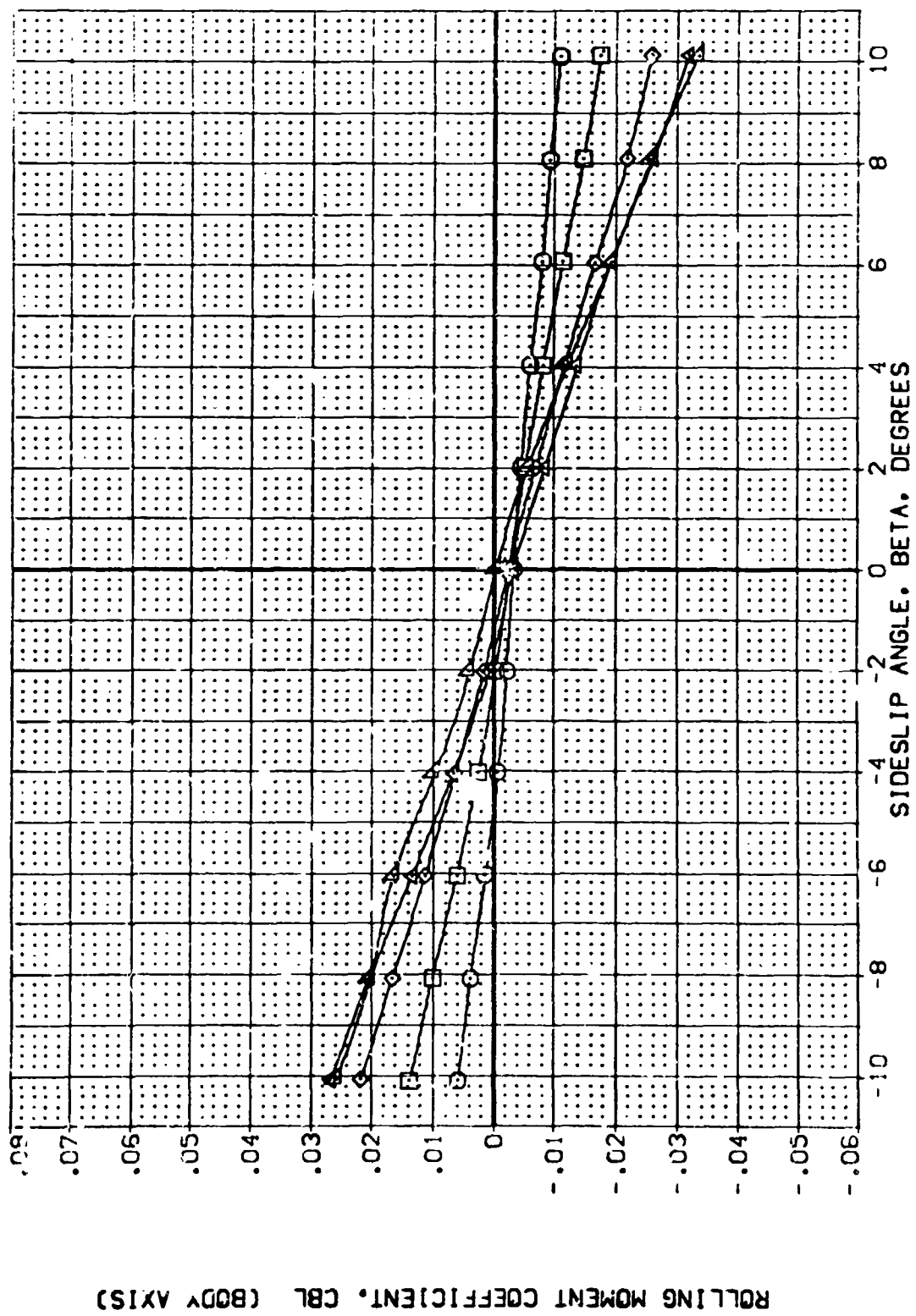


FIG 64 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 55 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AILRON	REFERENCE INFORMATION
(R07350)	CA628 B26C9 M7F8 V116E28VBR3X9	.000	-7.960	55.000	.000	SREF 4.4119 SQ.11
(R07351)	CA628 B26C9 M7F8 V116E28VBR3X9	5.000	-7.960	55.000	.000	LREF 19.2299 INC.45
(R07352)	CA628 B26C9 M7F8 V116E28VBR3X9	10.000	-7.960	55.000	.000	BREF 37.9309 INC.45
(R07353)	CA628 B26C9 M7F8 V116E28VBR3X9	15.000	-7.960	55.000	.000	XREF 43.5974 INC.45
(R07354)	CA628 B26C9 M7F8 V116E28VBR3X9	20.000	-7.960	55.000	.000	ZREF 15.0000 INC.45
						SCALE .0405 SCALE

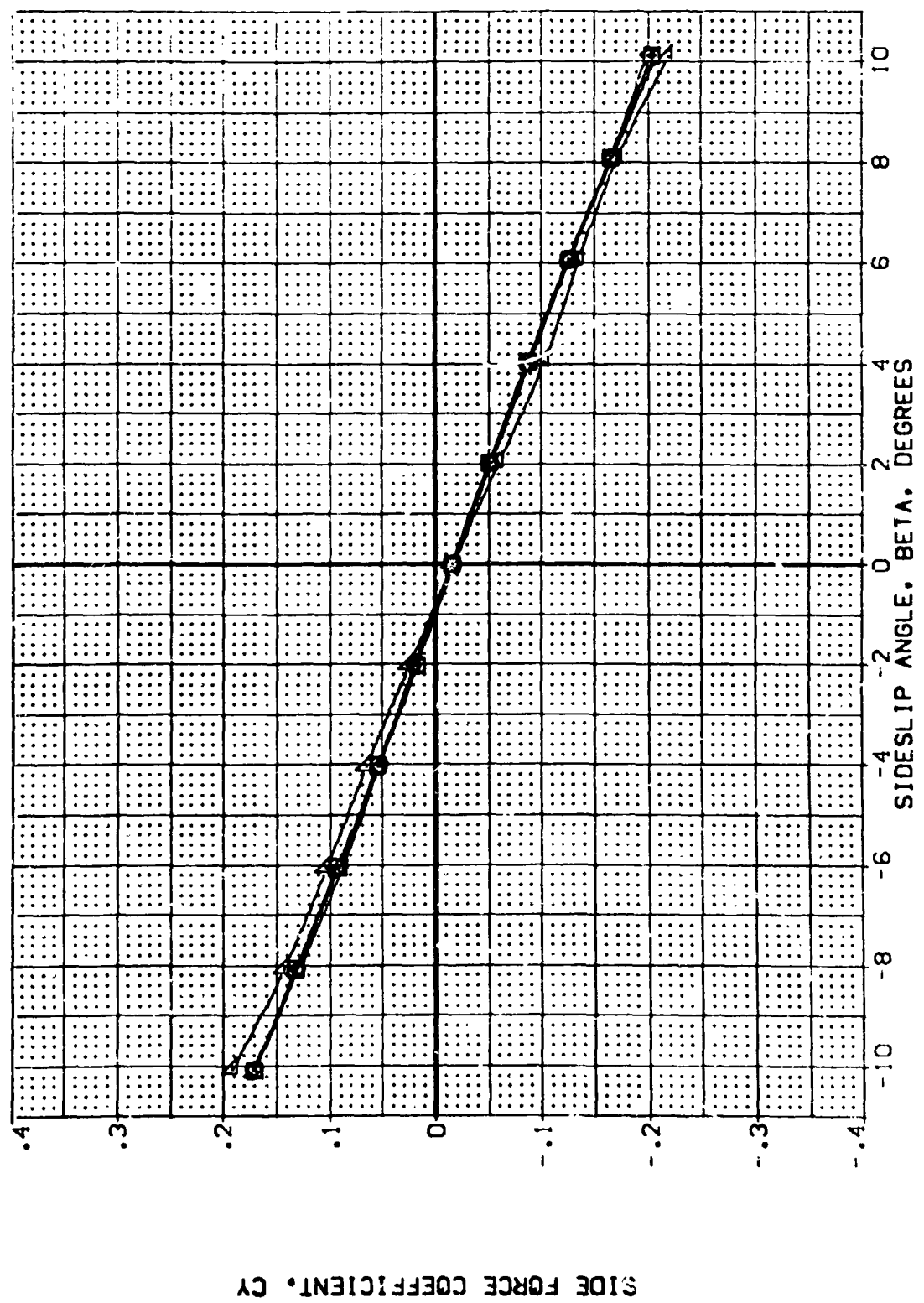


FIG 64 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 55 DEG FLARE  
 (A)MACH = .26

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBT, PER DEGREE

0A62B B26C9 M7F8 W116E28VPR5X9

(CDZ350)

SYMBOL  
O

RUDDER  
-7.960

MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.260 BOFLAP -12.000  
.000 AILRON .000  
55.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2799 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

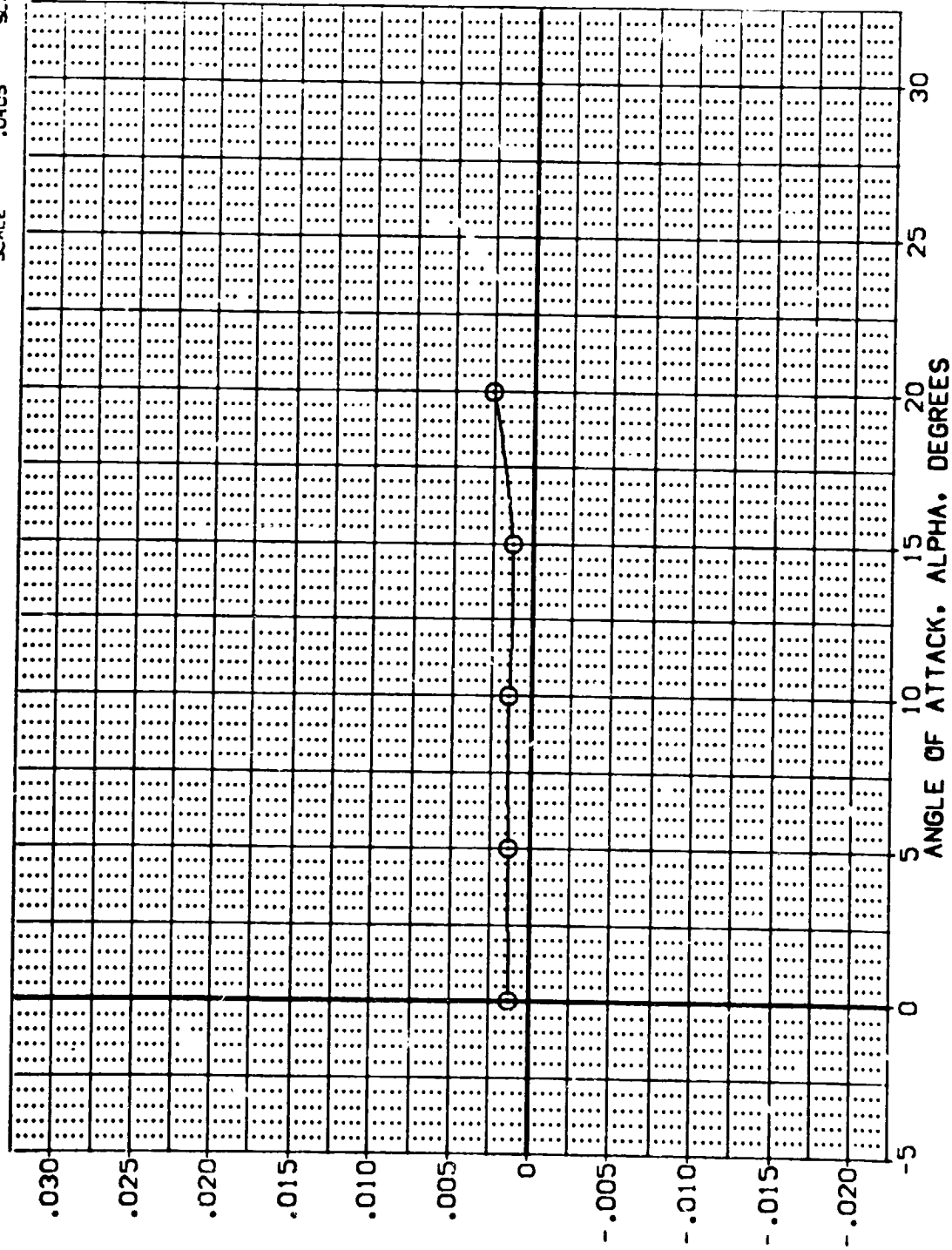


FIG 64 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 55 DEG FLARE

(CD7350)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

RUDDER  
-7.960

MACH  
CLEVEN  
SPOBRK

PARAMETRIC VALUES  
.260 BDFLAP  
.000 ALL RON  
55.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119 SO.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

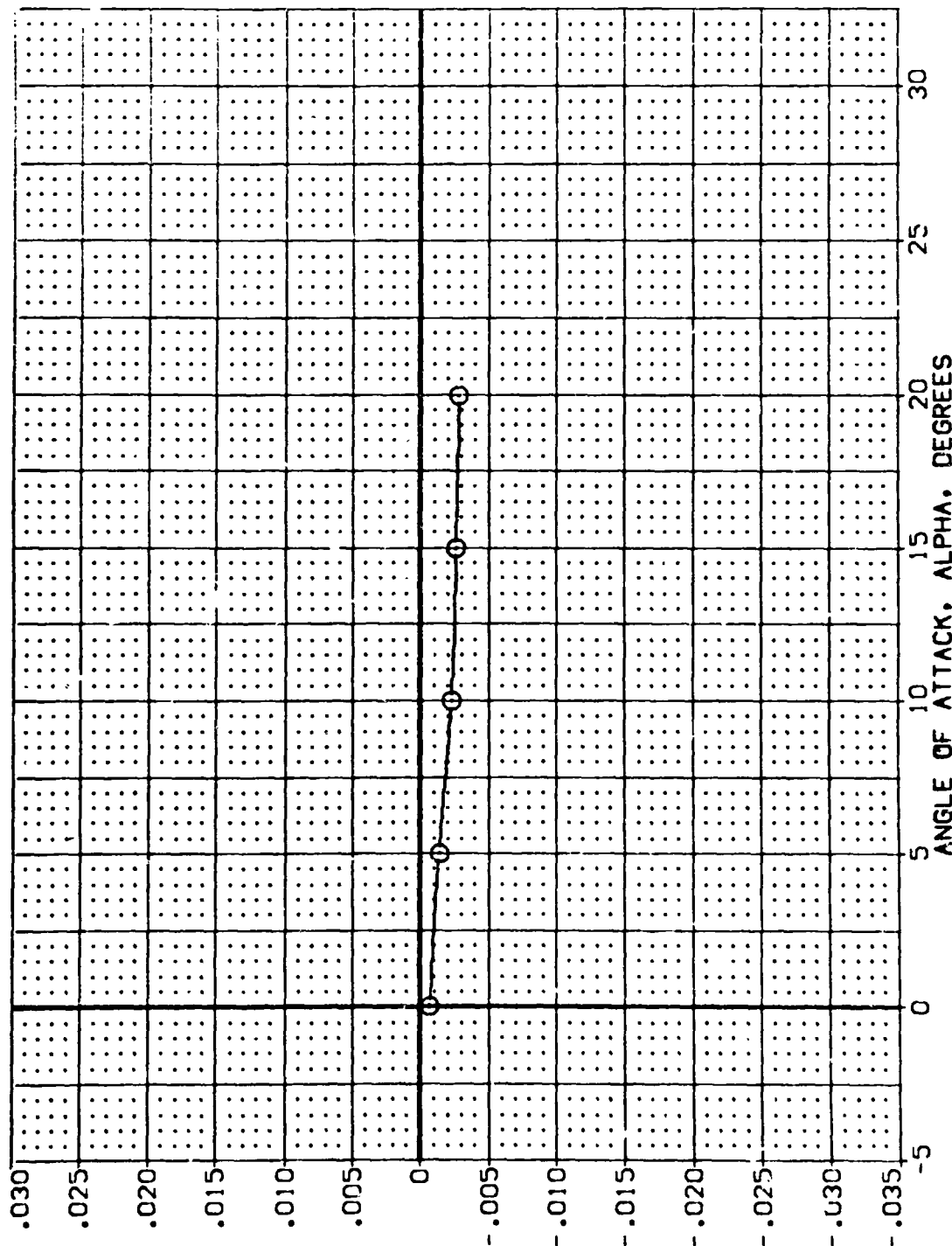


FIG 64 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 55 DEG FLARE

1.1

0A62B B26C9 M7F8 W116E28V8R5X9 (CDZ350)

SYMBOL  
O

RUDDER  
-7.960  
MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.260 BOFLAP -12.000  
.000 AILRON .000  
55.000

REFERENCE INFORMATION  
SPREF 4.4119  
LRREF 19.2299  
BRREF 37.9359  
XMRP 43.5974  
YMRP .0000  
ZMRP 15.1875  
SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

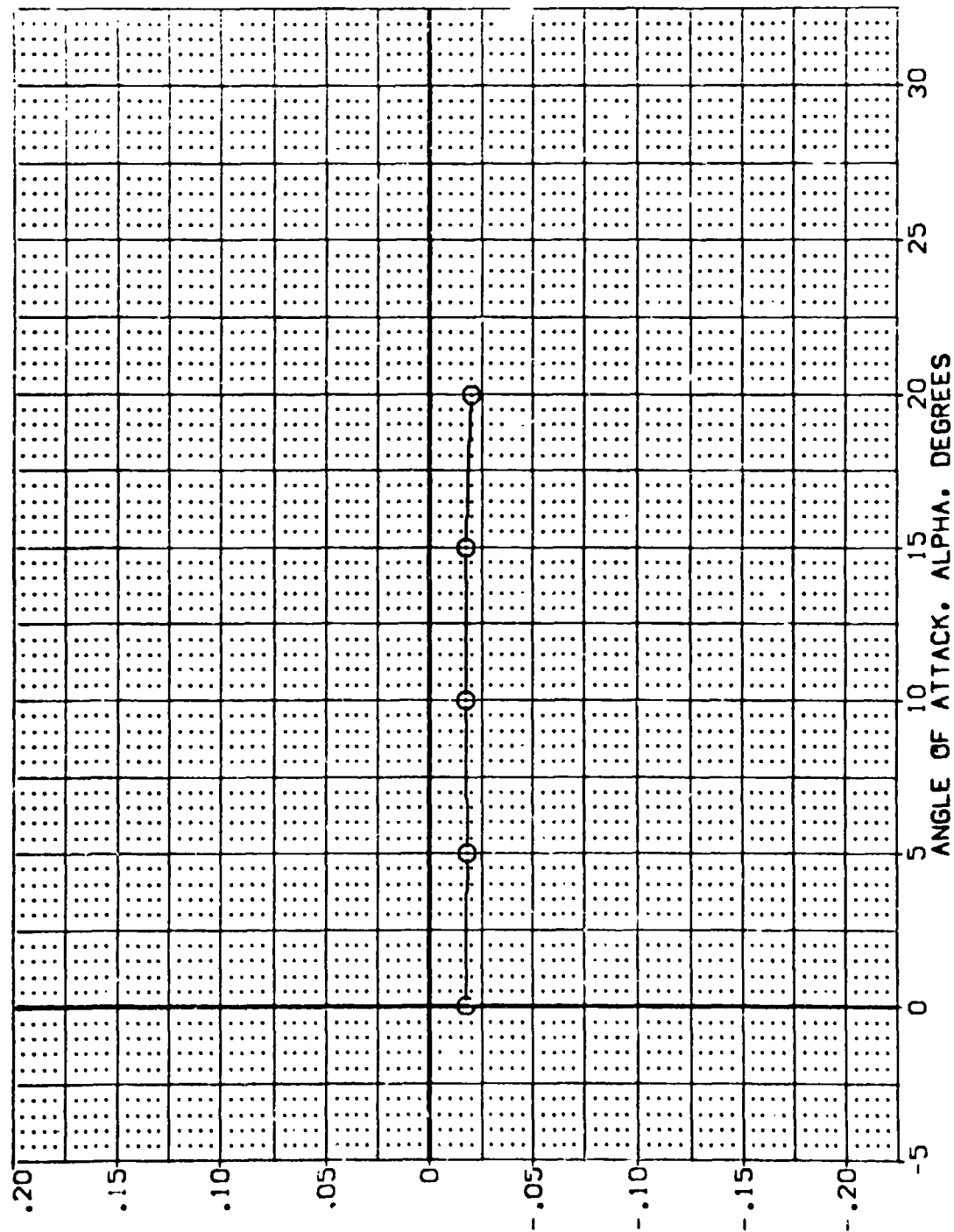


FIG 64 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 55 DEG FLARE

DATA SET SYMBO. CONFIGURATION DESCRIPTION

[RZ356]	0A628	B26C9	M7F8	V116E28V8R5X9
[RZ357]	0A628	B26C9	M7F8	V116E28V8R5X9
[RZ358]	0A628	B26C9	M7F8	V116E28V8R5X9
[RZ359]	0A628	B26C9	M7F8	V116E28V8R5X9
[RZ360]	0A628	B26C9	M7F8	V116E28V8R5X9

ALPHA RUDDER SPOBRK ALLRON REFERENCE INFORMATION

0.000	-16.220	55.000	.000	SREF	4.4119	50.000
5.000	-16.220	55.000	.000	LREF	19.2299	INC-F
10.000	-16.220	55.000	.000	BREF	37.9359	INC-F
15.000	-16.220	55.000	.000	YMRP	43.5974	INC-F
20.000	-16.220	55.000	.000	ZMRP	15.1875	INC-F
				SCALE	.0405	SCALE

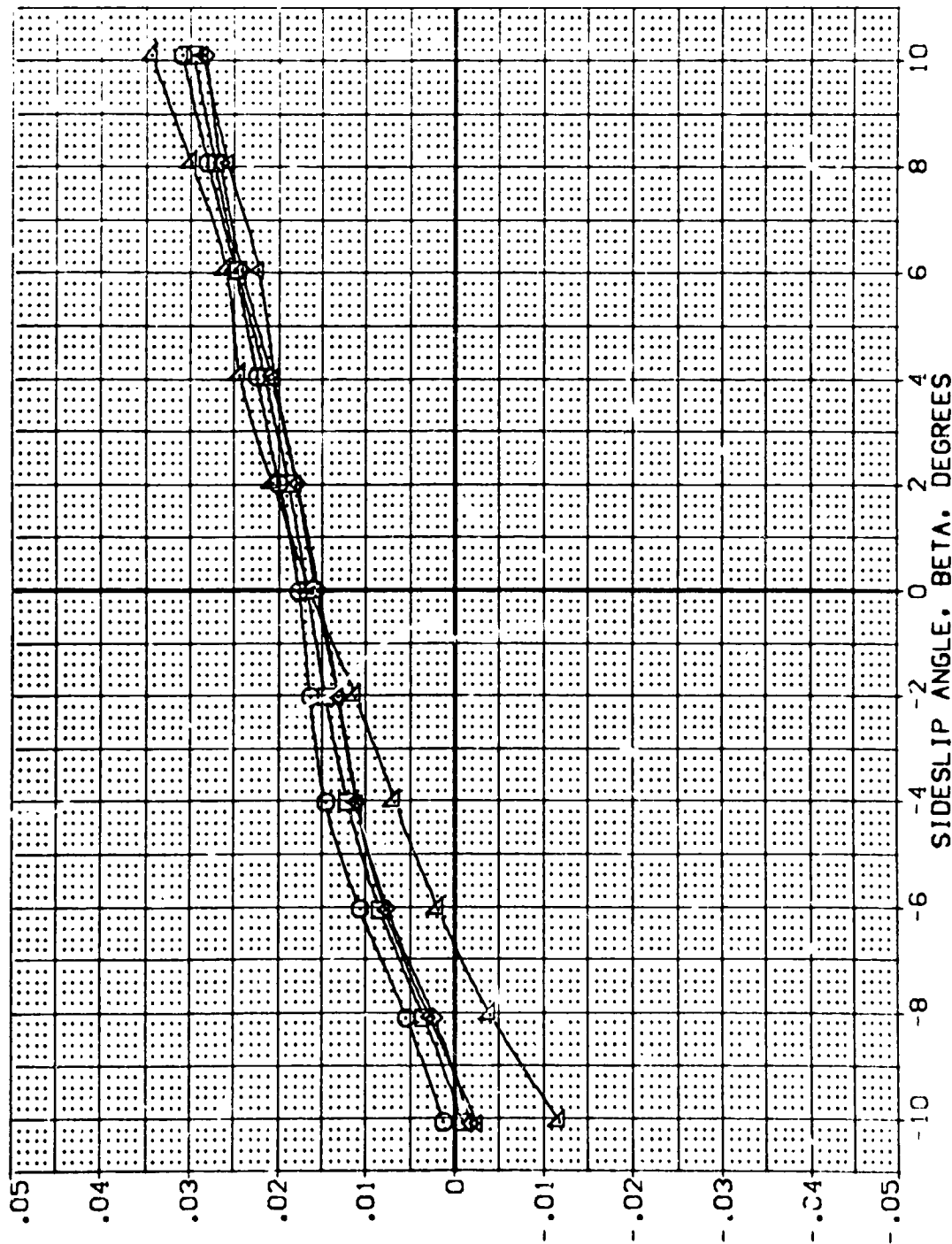


FIG 65 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 55 DEG FLARE

(A)MACH = .26



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRBK	AILRON	REFERENCE INFORMATION
(RDJ356)	QAG28 B26C9 MTF8 V116E28V85X9	.000	-16.220	55.000	.000	SREF 4.4119 SQ.FT.
(RDJ357)	QAG28 B26C9 MTF8 V116E28V85X9	5.000	-16.220	55.000	.000	LREF 19.2299 INCHES
(RDJ358)	QAG28 B26C9 MTF8 V116E28V85X9	10.000	-16.220	55.000	.000	BREF 37.9359 INCHES
(RDJ359)	QAG28 B26C9 MTF8 V116E28V85X9	15.000	-16.220	55.000	.000	XREF 43.5874 INCHES
(RDJ360)	QAG28 B26C9 MTF8 V116E28V85X9	20.000	-16.220	55.000	.000	YREF 15.0000 INCHES
						ZREF 15.1875 INCHES
						SCALE .0405

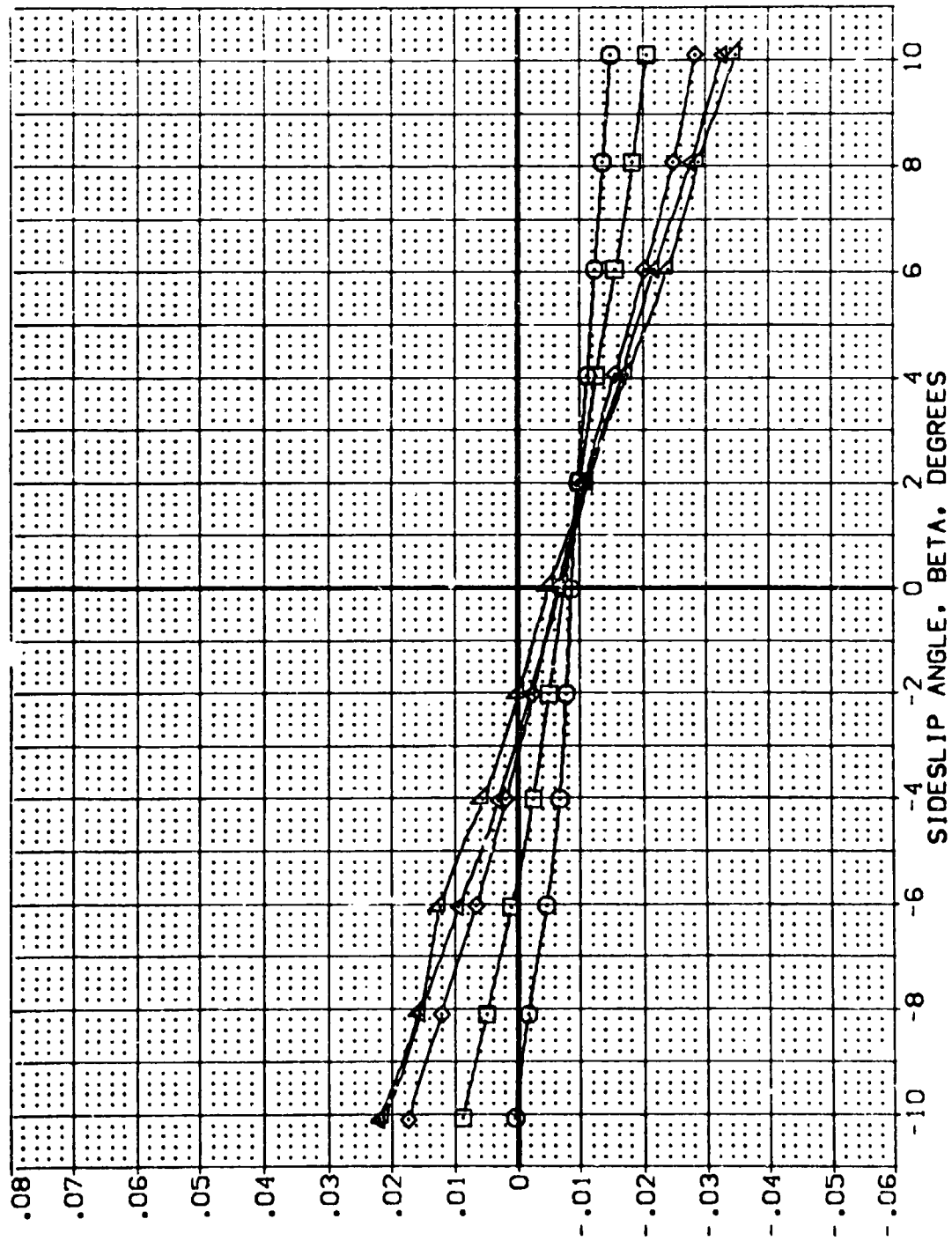


FIG 65 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 55 DEG FLARE

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(R02355)	CA628	B26C9	MTF8	V116E28V8P5X9
(R02357)	CA628	B26C9	MTF8	V116E28V8P5X9
(R02358)	CA628	B26C9	MTF8	V116E28V8P5X9
(R02359)	CA628	B26C9	MTF8	V116E28V8P5X9
(R02360)	CA628	B26C9	MTF8	V116E28V8P5X9

ALPHA RUDDER SPODBK AIRLON REFERENCE INFORMATION

.000	-16.220	55.000	.000	SREF	4.4119	50.41
5.000	-16.220	55.000	.000	LRREF	19.2299	NCES
10.000	-16.220	55.000	.000	BRF	37.9359	NCES
15.000	-16.220	55.000	.000	XMRP	43.5974	NCES
20.000	-16.220	55.000	.000	YMRP	.0000	NCES
				ZMRP	15.1875	NCES
				SCALE	.0405	SCALE

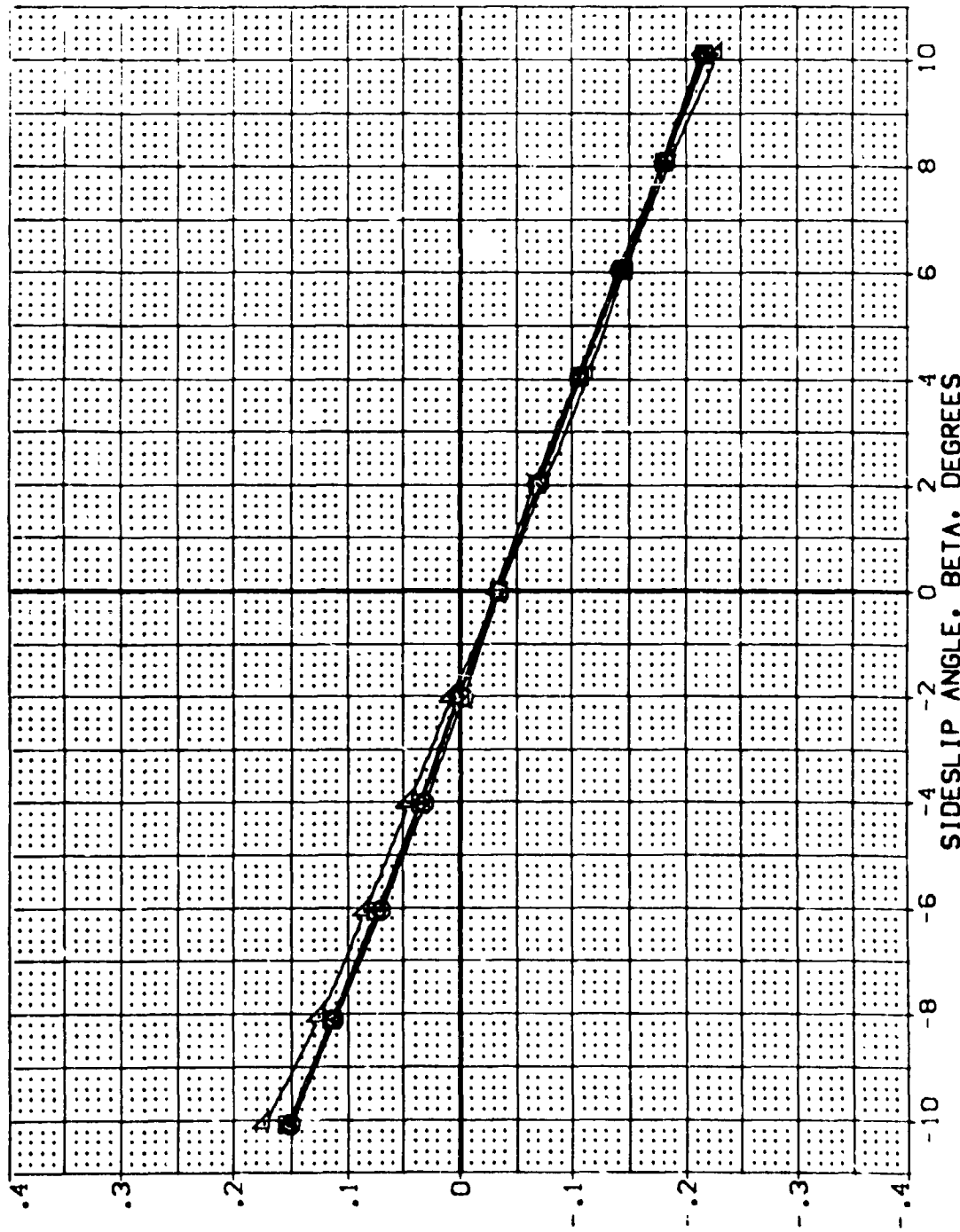


FIG 65 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 55 DEG FLARE

(A)MACH = .26



SYMBOL  
O

RUDDER  
-16.220

MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.260 BOFLAP  
.000 AILRON  
55.000

-12.000  
.000

CA628 B26C9 M7F8 W116E28V8R5X9

(CDZ356)

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.7299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5874 INCHES  
YMRP 15.0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0105

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

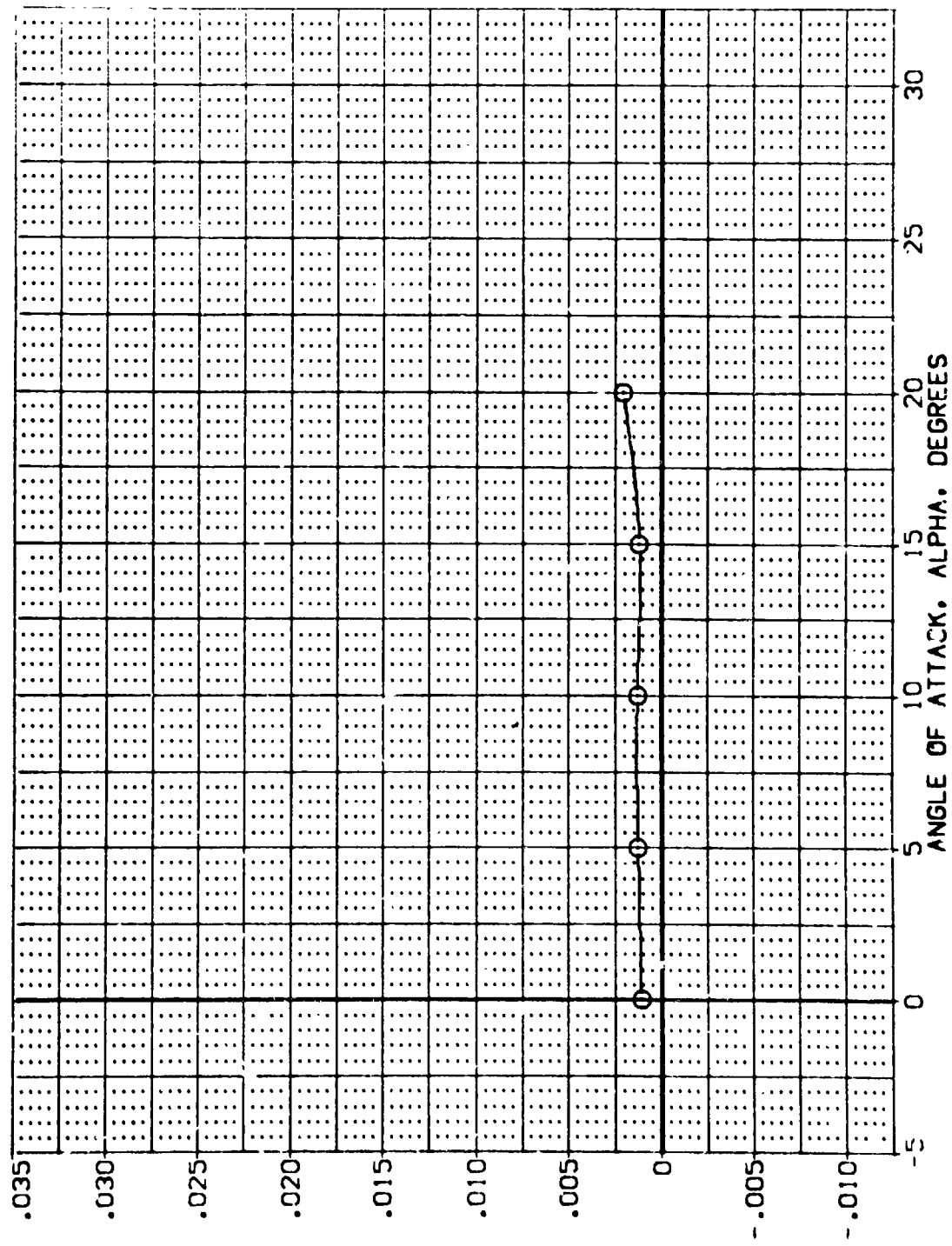


FIG 65 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 55 DEG FLARE

0A628 B28C9 M7F8 W116E28V8R5X9 (CDZ356)

SYMBOL  
O

RUDDER  
-16.220

MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.260 BDFLAP -12.000  
.000 AILRS .000  
55.000

REFERENCE INFORMATION  
SREF 4.4119  
LREF 19.2799  
BREF 37.3359  
XMRP 43.5974  
YMRP .0070  
ZMRP 15.1875  
SCALE .0405

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

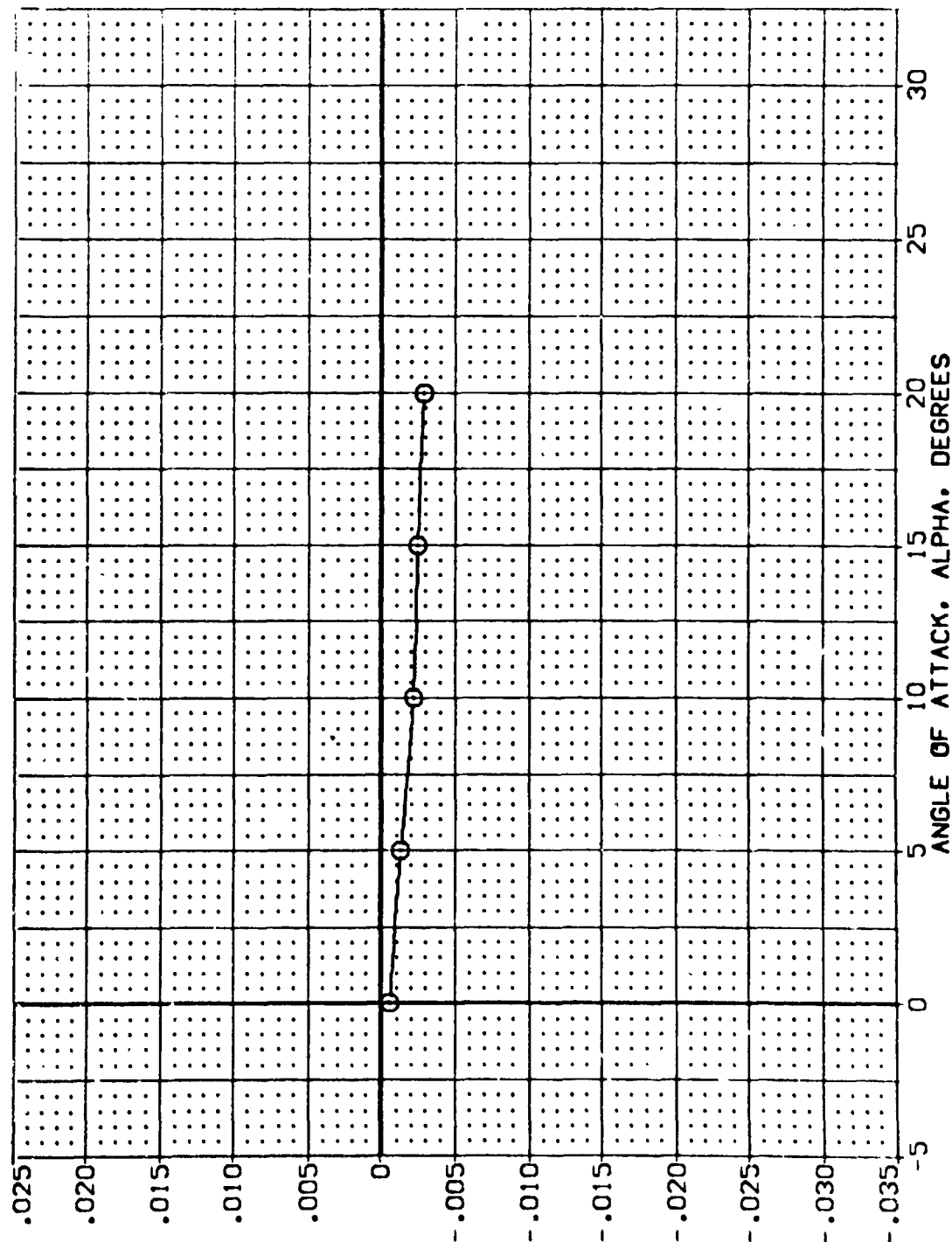


FIG 65 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 55 DEG FLARE

44

0A62B B26C9 M7F8 W116E28V8R5X9 (CDZ356)

SYMBOL RUDER -16.220 MACH .260 BDF LAP -12.000  
 O ELEVON .000 AILRON .000  
 SPDRK 55.000

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2299 INCHES  
 BREF 37.9359 INCHES  
 XMRP 43.5974 INCHES  
 YMRP .0000 INCHES  
 ZMRP 15.1875 INCHES  
 SCALE .0465

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

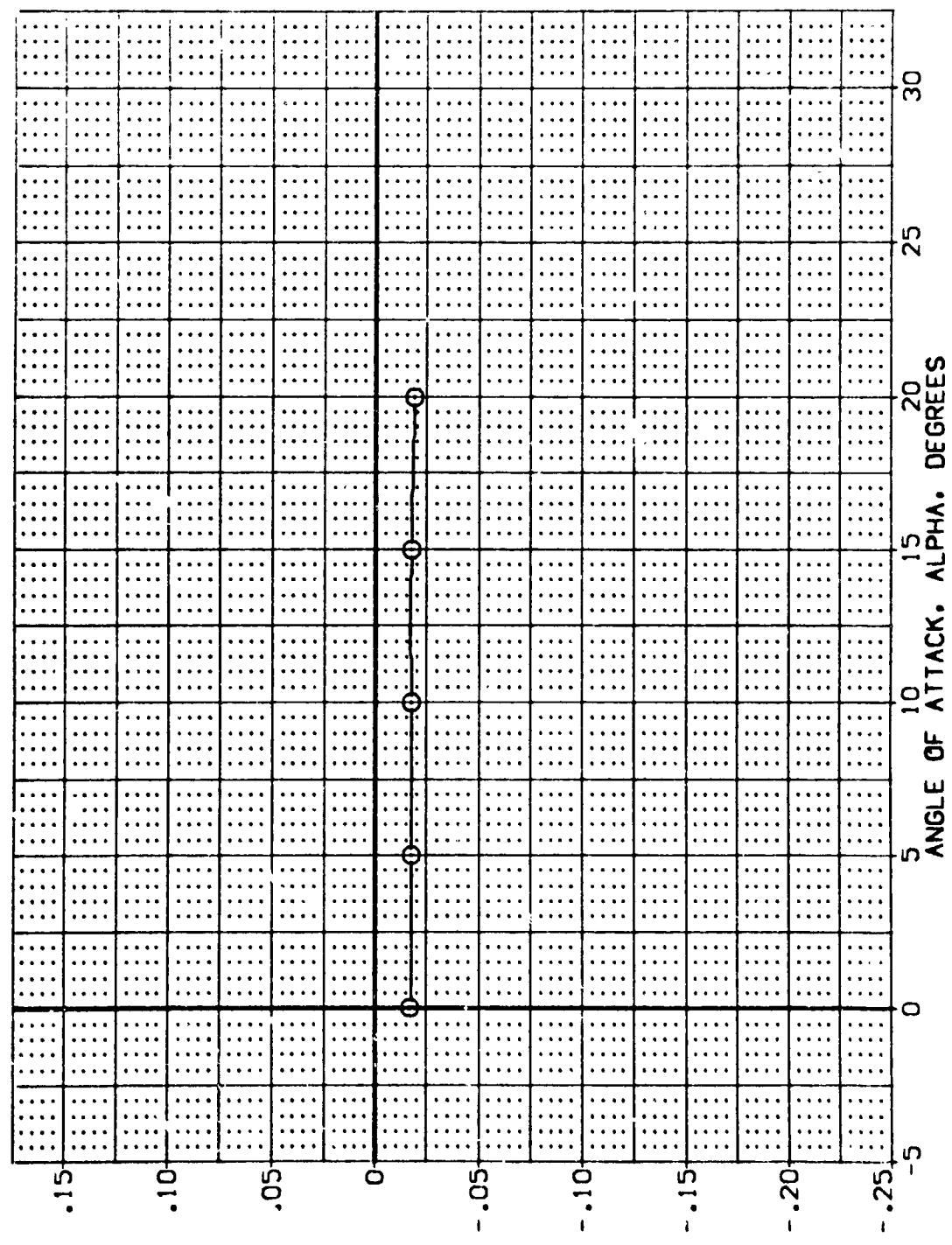


FIG 65 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 55 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AILRON	REFERENCE INFORMATION
(RD324)	QAG28 B26C9 M7F8 V116E28V85X9	.000	.000	25.000	.000	SREF 4.4119 SQ.FT
(RD325)	QAG28 B26C9 M7F8 V116E28V85X9	.000	.000	25.000	.000	LREF 19.2799 INCHES
(RD326)	QAG28 B26C9 M7F8 V116E28V85X9	.000	.000	25.000	.000	BREF 37.9359 INCHES
(RD327)	QAG28 B26C9 M7F8 V116E28V85X9	.000	.000	25.000	.000	XMRP 43.5974 INCHES
(RD328)	QAG28 B26C9 M7F8 V116E28V85X9	.000	.000	25.000	.000	YMRP .0300 INCHES
		20.000	.000	25.000	.000	ZMRP 15.1875 INCHES
						SCALE .0405

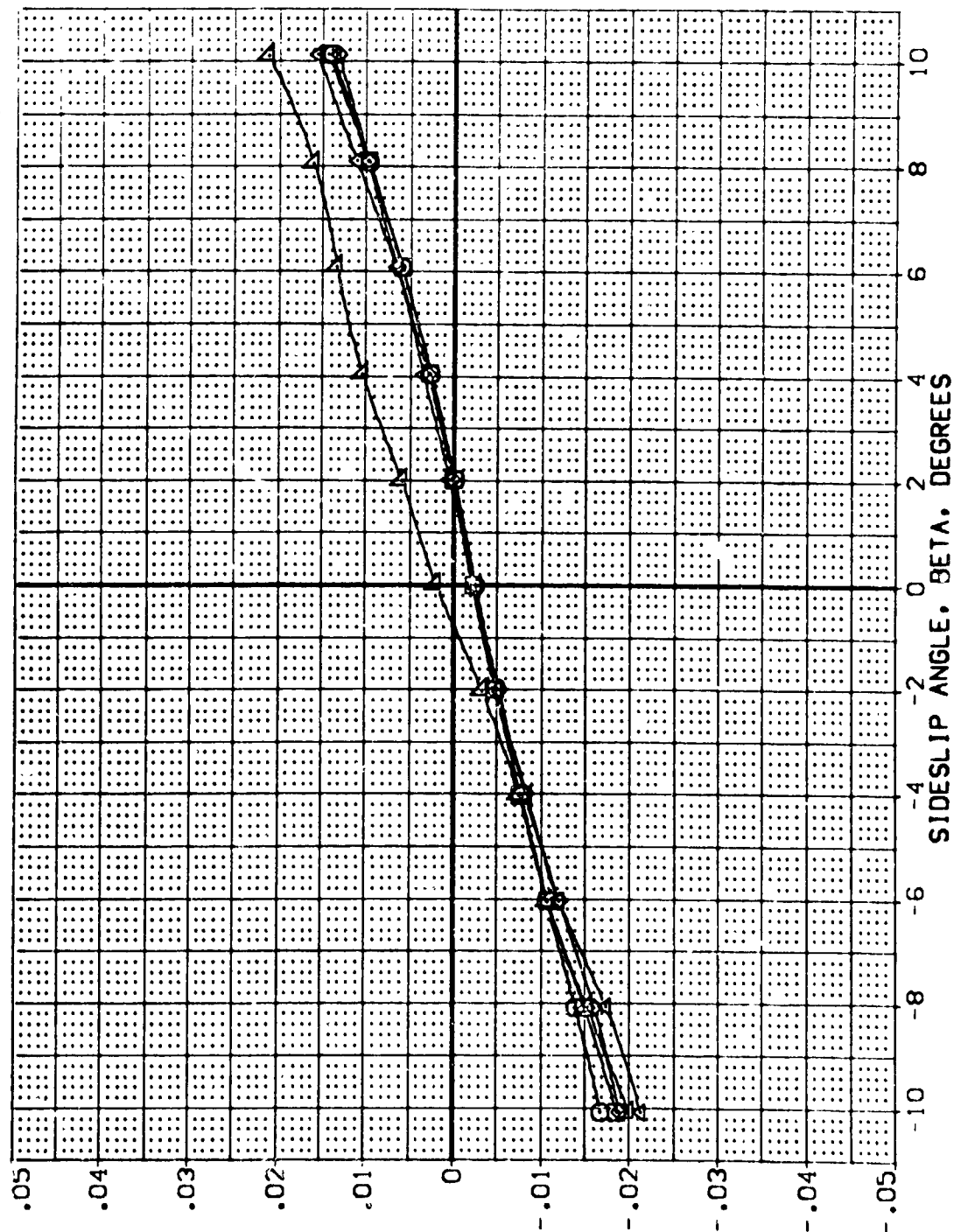


FIG 66 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 25 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPEED	AILRON	REFERENCE INFORMATION
(R02324)	DA528 B26C9 M7F8 V116E28V8P5X9	.000	.000	25.000	.000	SRF 4.4119 SC.FT
(R02325)	DA528 B26C9 M7F8 V116E28V8P5X9	.000	.000	25.000	.000	LRF 19.2299 NC-FS
(R02326)	DA528 B26C9 M7F8 V116E28V8P5X9	.000	.000	25.000	.000	BREF 37.9352 NC-FS
(R02327)	DA528 B26C9 M7F8 V116E28V8P5X9	.000	.000	25.000	.000	XMRP 43.5974 NC-FS
(R02328)	DA528 B26C9 M7F8 V116E28V8P5X9	.000	.000	25.000	.000	YMRP .0000 NC-FS
		20.000	.000	25.000	.000	ZMRP 15.1875 NC-FS
						SCALE .04CS

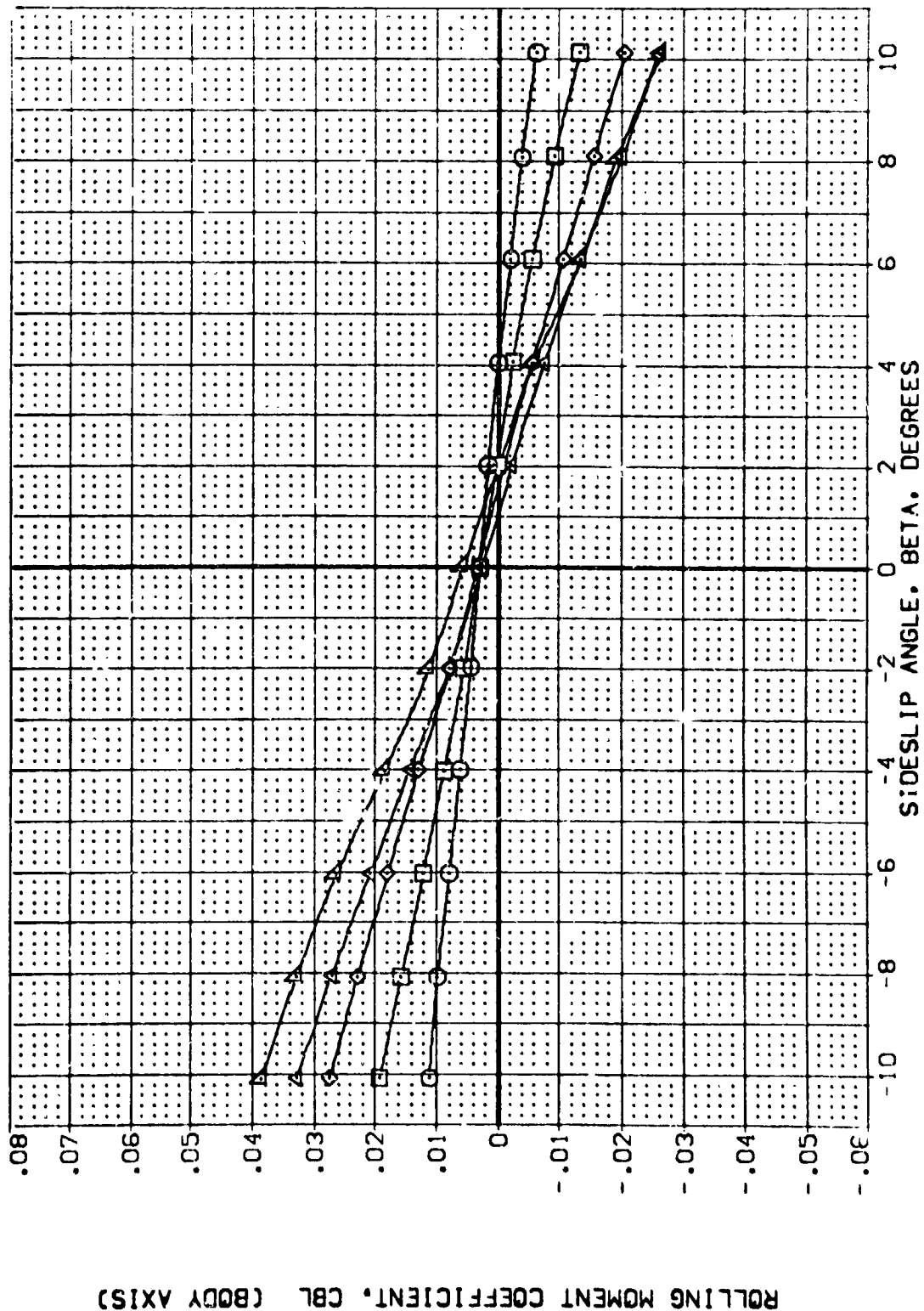


FIG 66 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.25 DEG FLARE

(AJ)MACH = .26

SIDE FORCE COEFFICIENT, CY

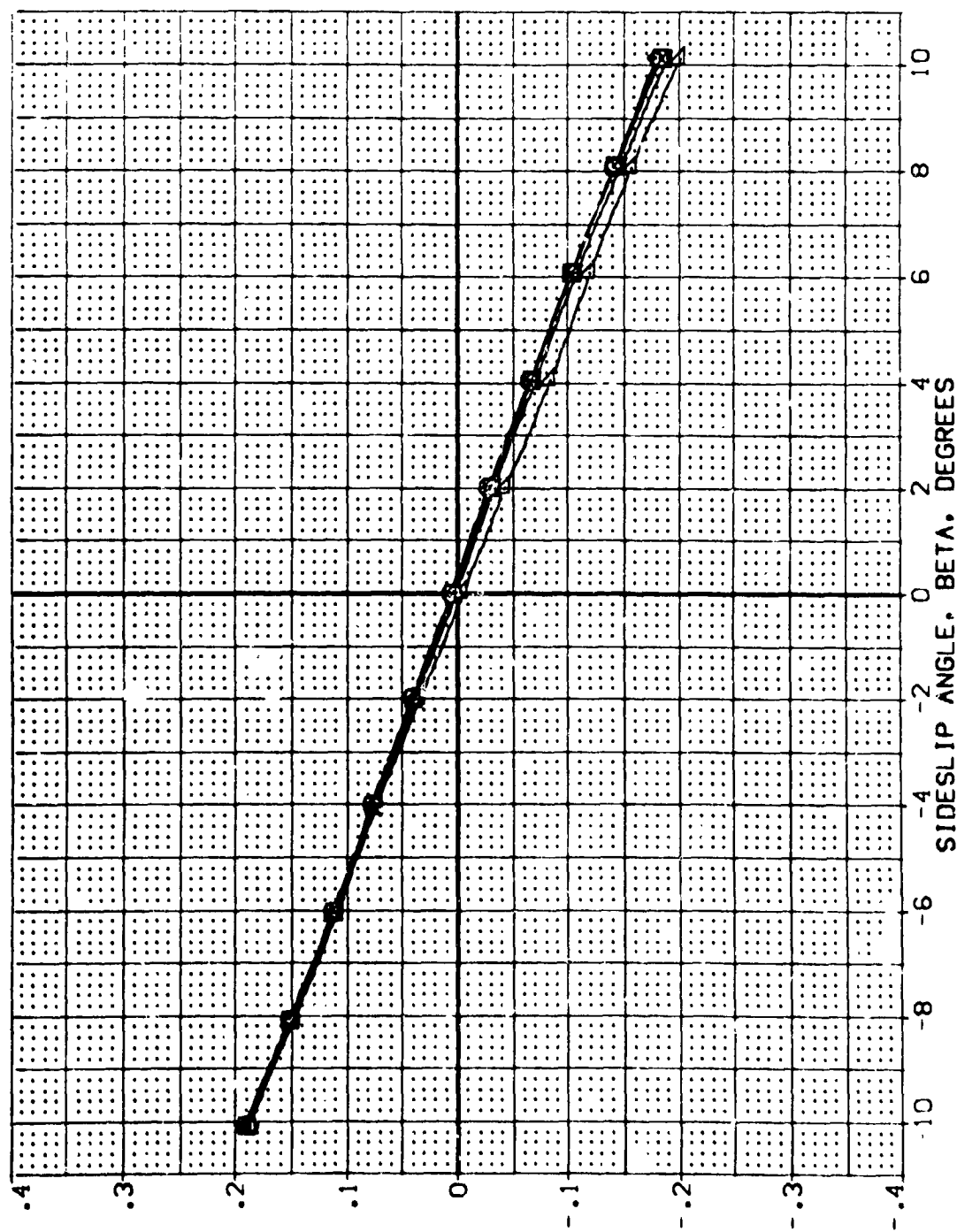


FIG 66 LATERAL-DIRECTIONAL STABILITY: RUDDER = 0, 25 DEG FLARE

(A)MAY - .26



C-11



0A628 B26C9 M7F8 W116E28V8R5X9

(C0Z324)

SYMBOL  
O

RUDDER  
.000

PARAMETRIC VALUES  
MACH .260 BD FLAP -12.000  
ELEVON .000 AILRON .000  
SPDRK 25.000

REFERENCE INFORMATION  
SREF 4.4118 SQ.FT.  
LREF 19.2298 INCHES  
BREF 37.9259 INCHES  
XMRP 43.5574 INCHES  
VMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET. PER DEGREE

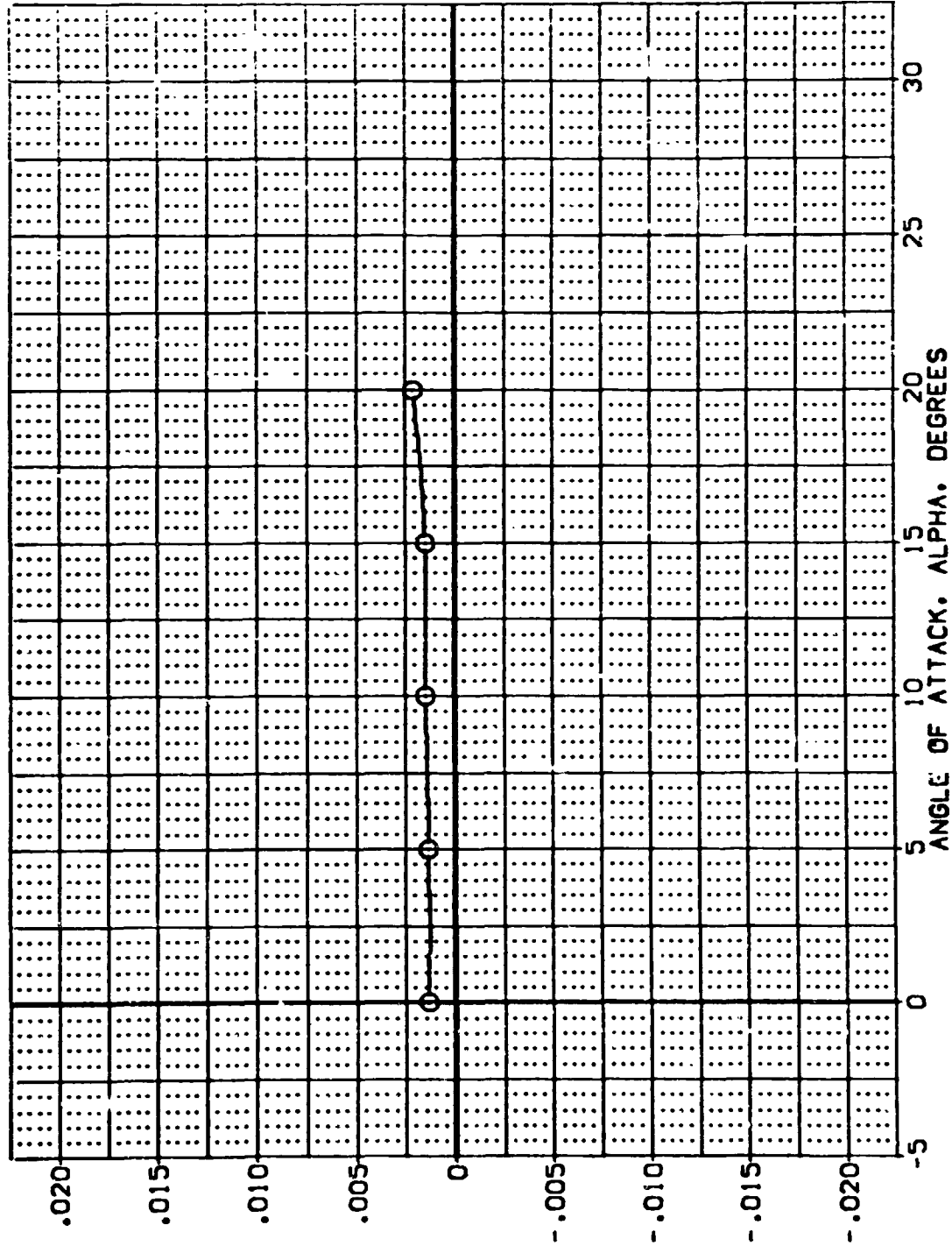


FIG 66 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 25 DEG FLARE

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

SYMBOL  
O

0A62B B26C9 M7F8 W116E28V8R5X9  
PARAMETRIC VALUES  
MACH .760 BDFLAP -12.000  
ELEVON .000 ALLRON .000  
SPDRK 25.000

(CDZ324)

REFERENCE INFORMATION  
BREF 4.4118 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XREF 43.5874 INCHES  
YREF 15.0000 INCHES  
ZREF 15.1873 INCHES  
SCALE .0405

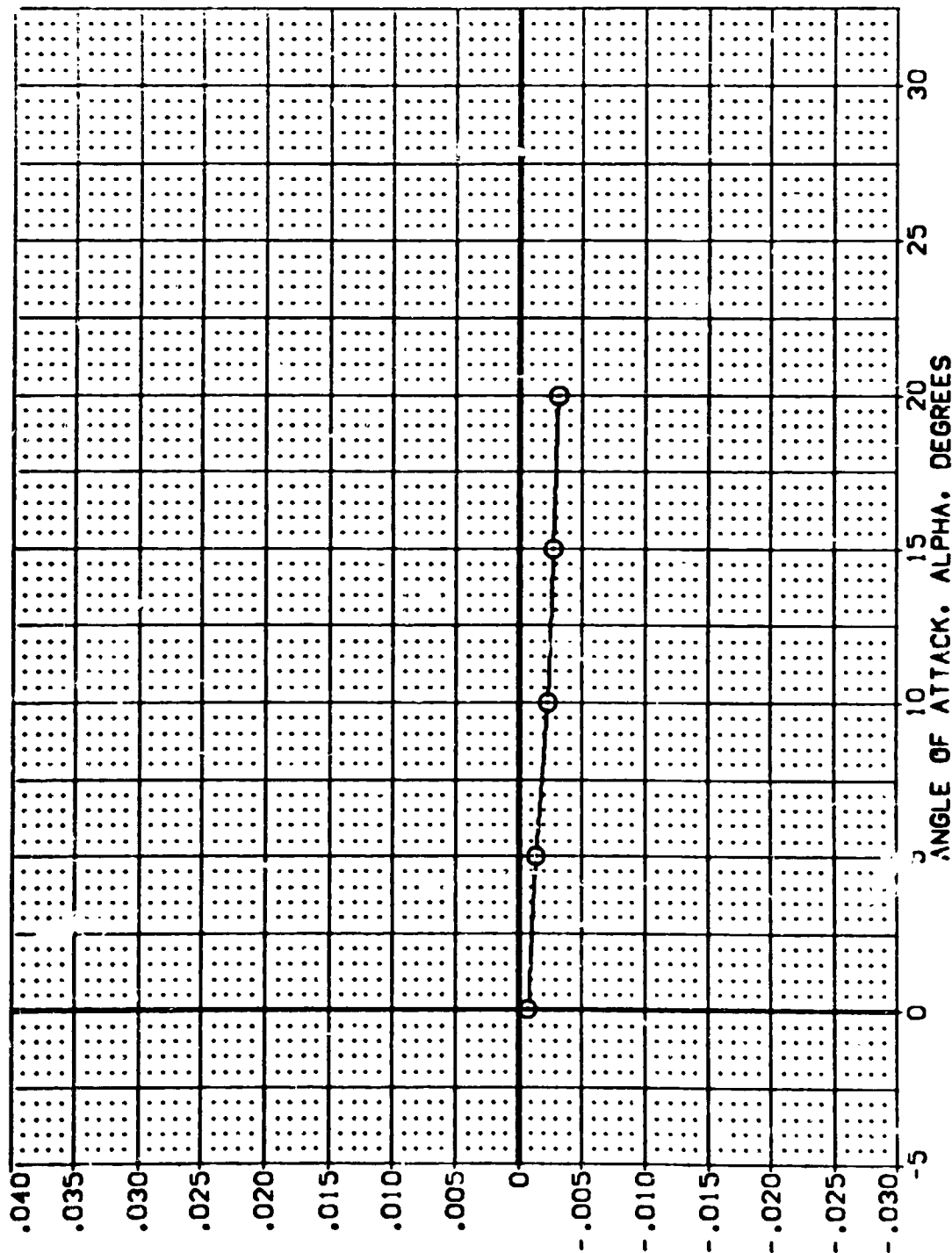


FIG 66 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 25 DEG FLARE

— ○

— H

0A62B B26C9 M7F8 W116E28V8R5X9

(C0Z324)

SYMBOL  
○

RUDDER  
.000

MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.260 BOFLAP  
.000 AILRON  
25.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2298 INCHES  
BREF 37.9259 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

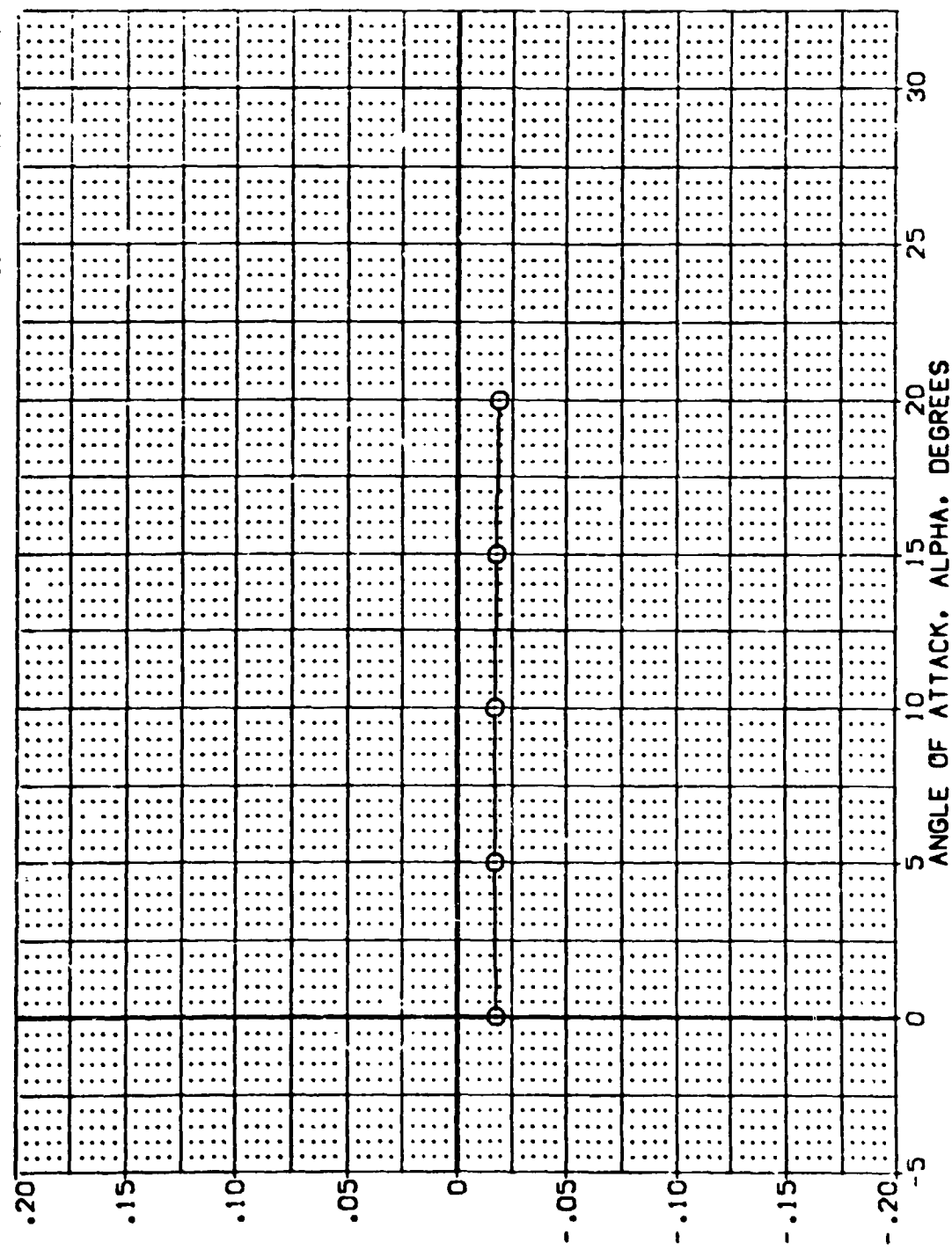


FIG 66 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 25 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AILRON	REFERENCE INFORMATION
[RDZ331]	0A628 B76C9 M7F8 V116E28V8P5X9	.000	.000	40.000	.000	SREF 4.4119 SQ.FT.
[RDZ332]	0A628 B76C9 M7F8 V116E28V8P5X9	5.000	.000	40.000	.000	LREF 19.2289 NC-ES
[RDZ333]	0A628 B76C9 M7F8 V116E28V8P5X9	10.000	.000	40.000	.000	BREF 37.9359 NC-ES
[RDZ334]	0A628 B76C9 M7F8 V116E28V8P5X9	15.000	.000	40.000	.000	XREF 43.5874 NC-ES
[RDZ335]	0A628 B76C9 M7F8 V116E28V8P5X9	20.000	.000	40.000	.000	YREF 15.1875 NC-ES
						ZREF .0405 SCALE

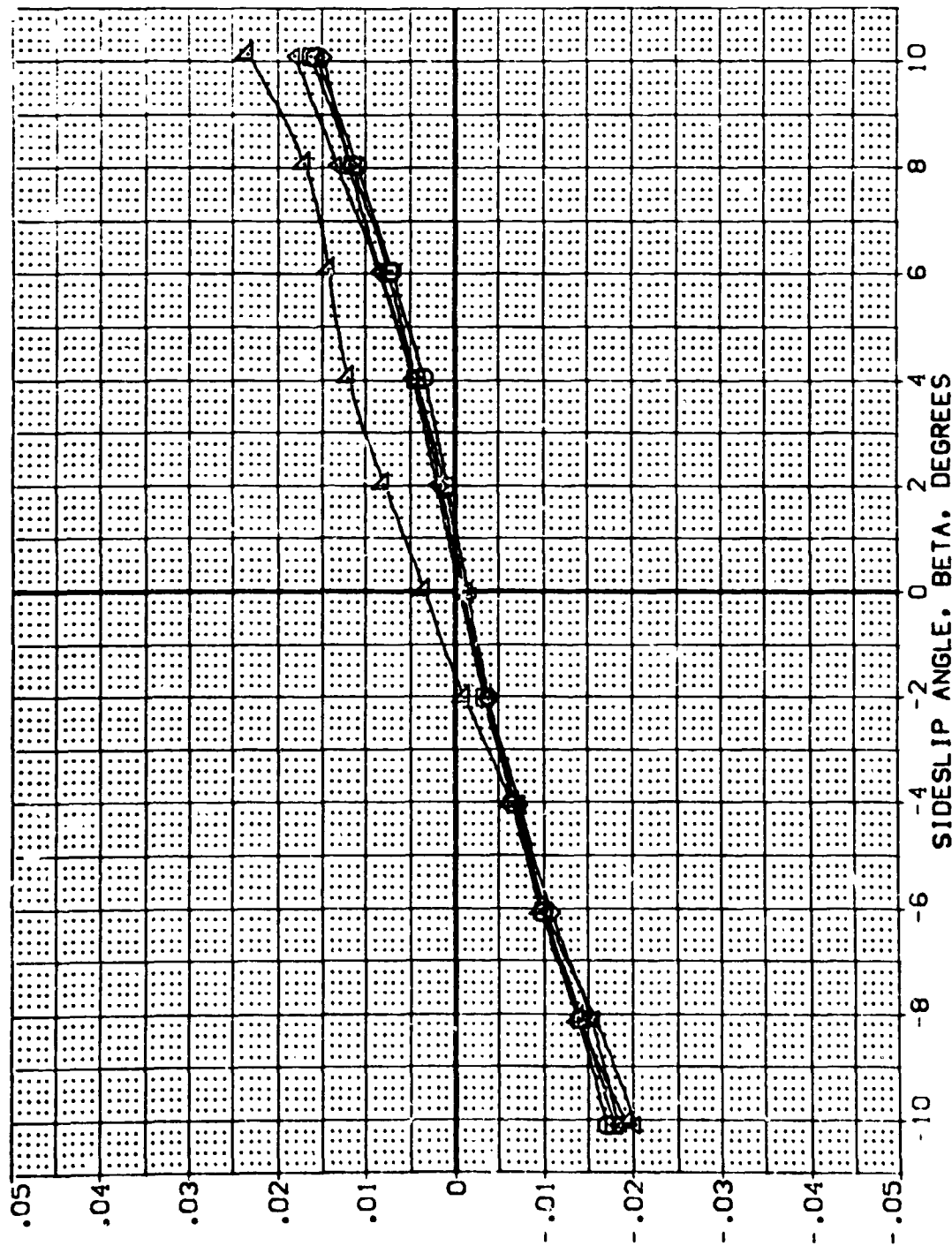


FIG 67 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.40 DEG FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRX	AILRON	REFERENCE INFORMATION
[R02331]	0A528 B26C9 M7F8 V115E28V8FSX9	.000	.000	40.000	.000	SREF 4.4119 SQ.FT
[R02332]	0A528 B26C9 M7F8 V115E28V8FSX9	5.000	.000	40.000	.000	LREF 19.2299 INC.FS
[R02333]	0A528 B26C9 M7F8 V115E28V8FSX9	10.000	.000	40.000	.000	BREF 37.9359 INC.FS
[R02334]	0A528 B26C9 M7F8 V115E28V8FSX9	15.000	.000	40.000	.000	XMRP 43.5974 INC.FS
[R02335]	0A528 B26C9 M7F8 V115E28V8FSX9	20.000	.000	40.000	.000	YMRP .0000 INC.FS
						ZMRP 15.1875 INC.FS
						SCALE .0405

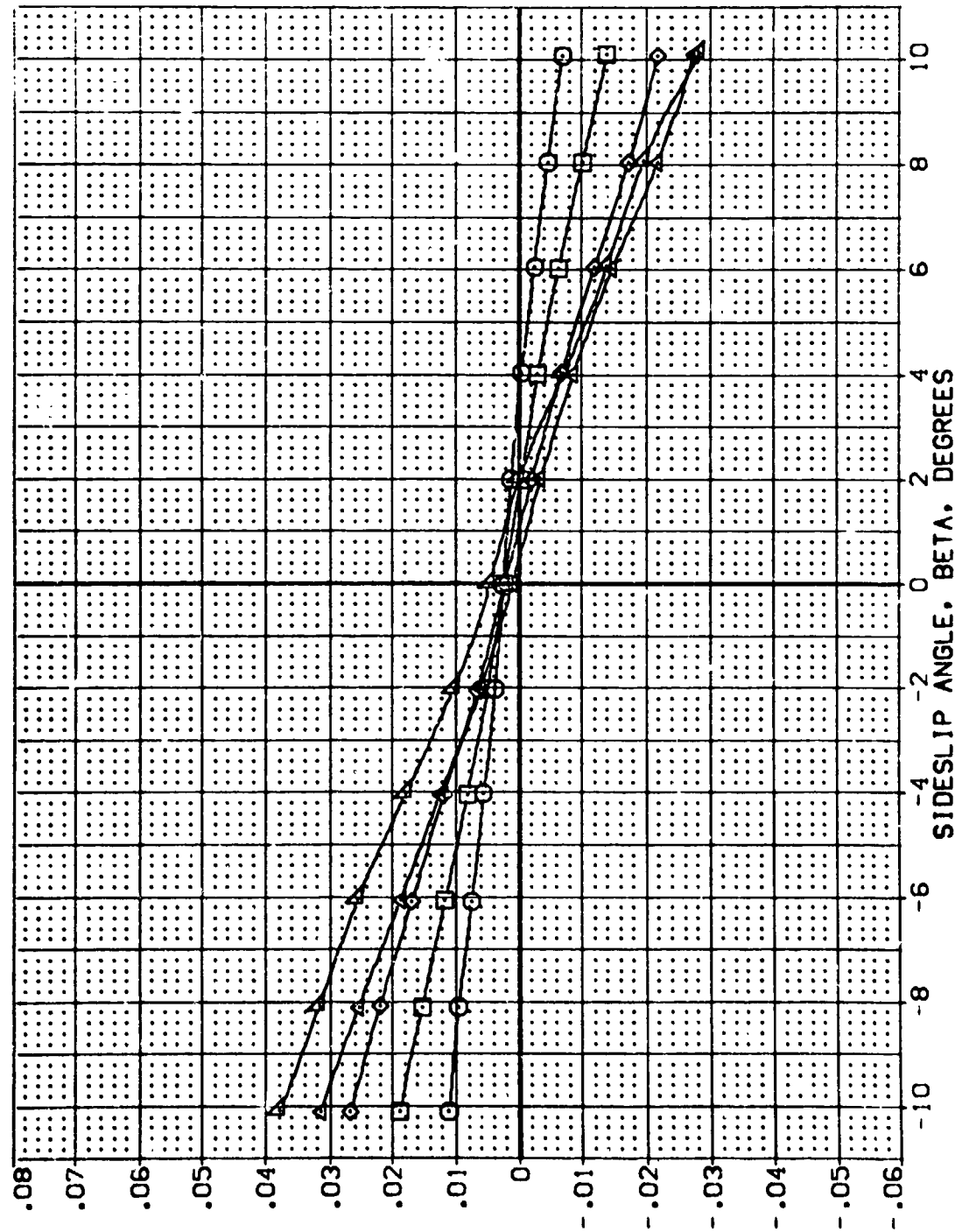


FIG 67 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 40 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALFA	RUDDER	SPOBRK	AILRON	REFERENCE INFORMATION
[RD2331]	DA628 B26C9 M7F8 V116E28V8F5X9	.000	.000	40.000	.000	SREF 4.4119 SQ.FT.
[RD2332]	DA628 B26C9 M7F8 V116E28V8F5X9	.000	.000	40.000	.000	LREF 19.2299 INCHES
[RD2333]	DA628 B26C9 M7F8 V116E28V8F5X9	5.000	.000	40.000	.000	BREF 37.9359 INCHES
[RD2334]	DA628 B26C9 M7F8 V116E28V8F5X9	10.000	.000	40.000	.000	YMRP 43.5974 INCHES
[RD2335]	DA628 B26C9 M7F8 V116E28V8F5X9	15.000	.000	40.000	.000	ZMRP .0000 INCHES
		20.000	.000	40.000	.000	SCALE 15.1875 INCHES

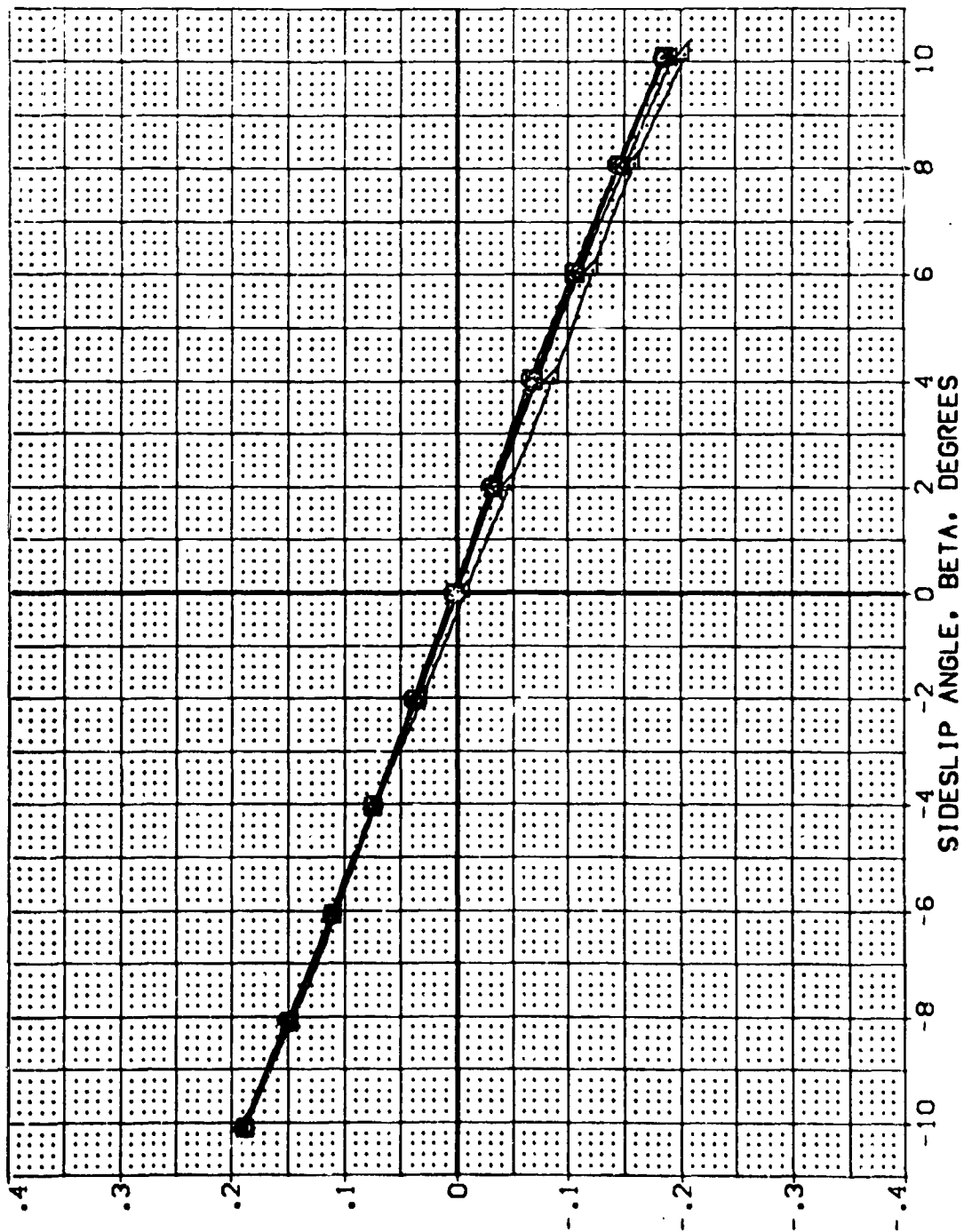


FIG 67 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 40 DEG FLARE

(A)MACH = .26

(CDZ331)

W116E28V8R5X9

M7F8

0AG2B 026C9

SYMBOL  
0

RUDDER  
.000

MACH  
ELEVON  
SPOBRK

PARAMETRIC VALUES  
.260 BDF LAP  
.000 AILRON  
40.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5574 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

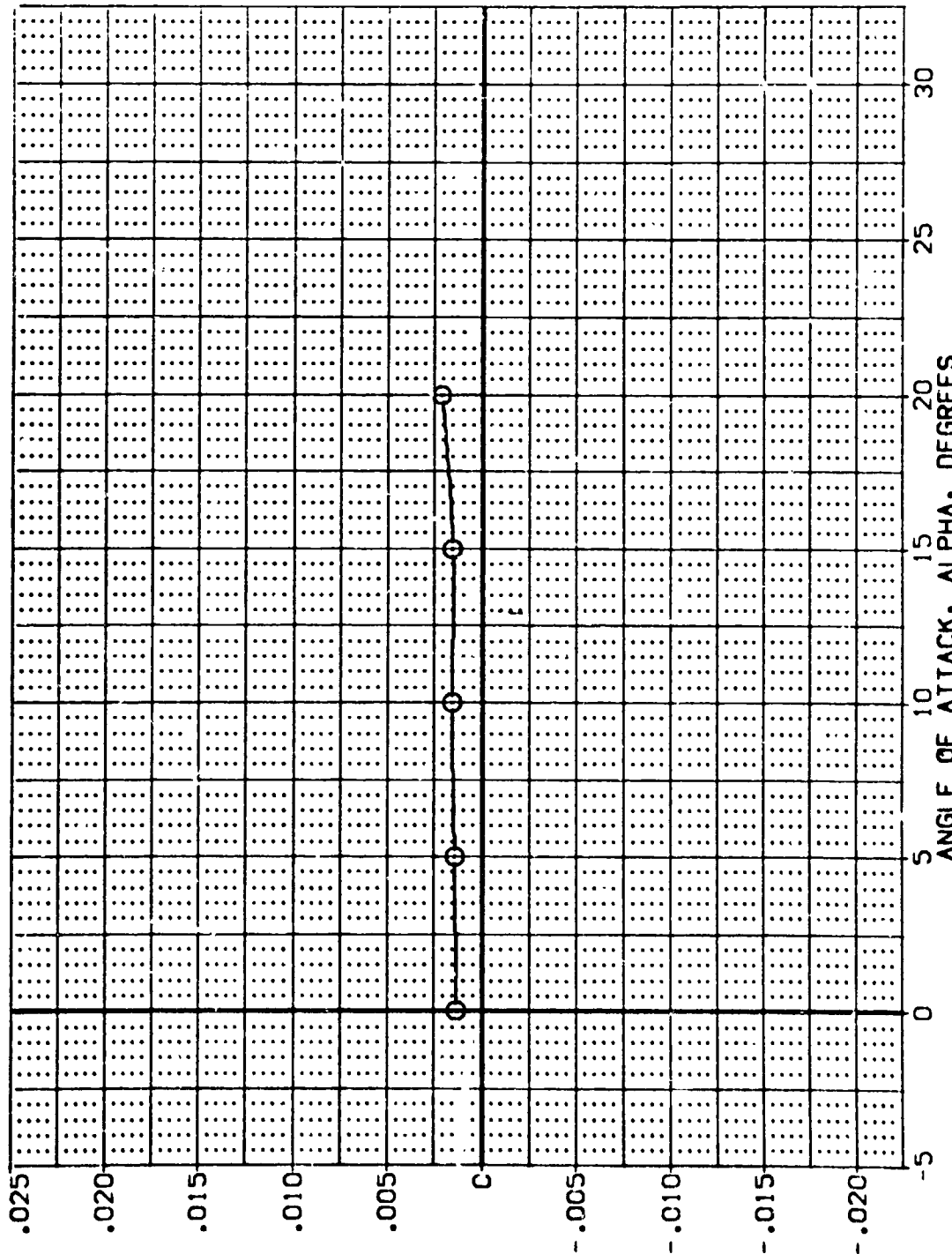


FIG 67 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 40 DEG FLARE

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

SYMBOL  
O

0A62B B26C9 M7F8 W116E28V8R5X9

(CDZ331)

PARAMETRIC VALUES  
MACH .260 BOFLAP -12.000  
ELEVON .000 AILRON .000  
SPDRK 40.000

REFERENCE INFORMATION  
SREF 4.4119 SC.F.T.  
LREF 19.2799 NC.F.S  
BREF 37.9359 NC.F.S  
XMRP 43.5874 NC.F.S  
YMRP .0000 NC.F.S  
ZMRP 15.1875 NC.F.S  
SCALE .0405

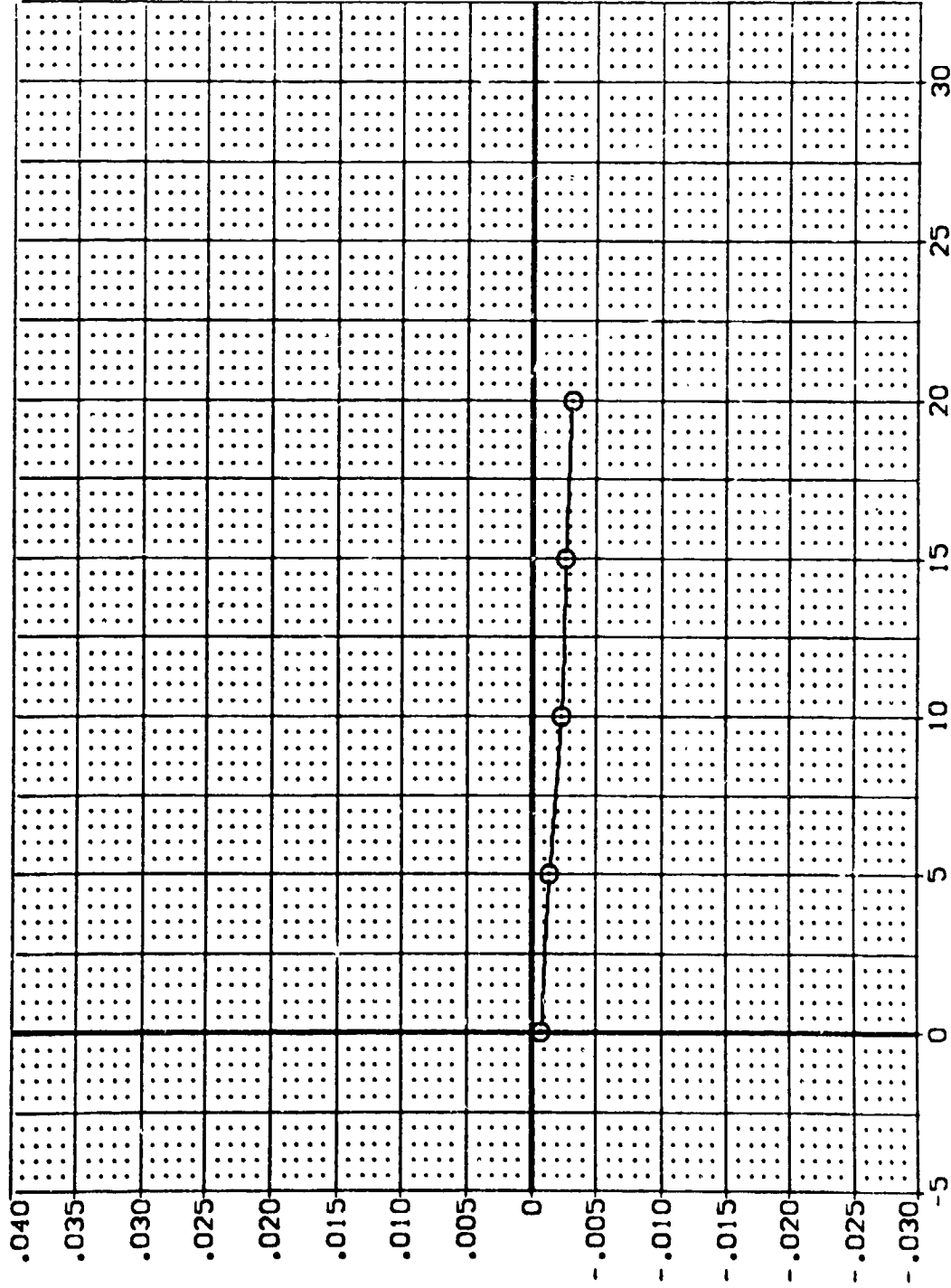


FIG 67 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 40 DEG FLARE





0A628 B26C9 M7F8 W116E28V8R5X9 (CDZ331)

SYMBOL  
O

RUDDER  
.000

MACH  
ELEVON  
SPOBRK

PARAMETRIC VALUES  
.260 BDELAP  
.000 AILRON  
40.000

REFERENCE INFORMATION  
SREF 4.1119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP 10.0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

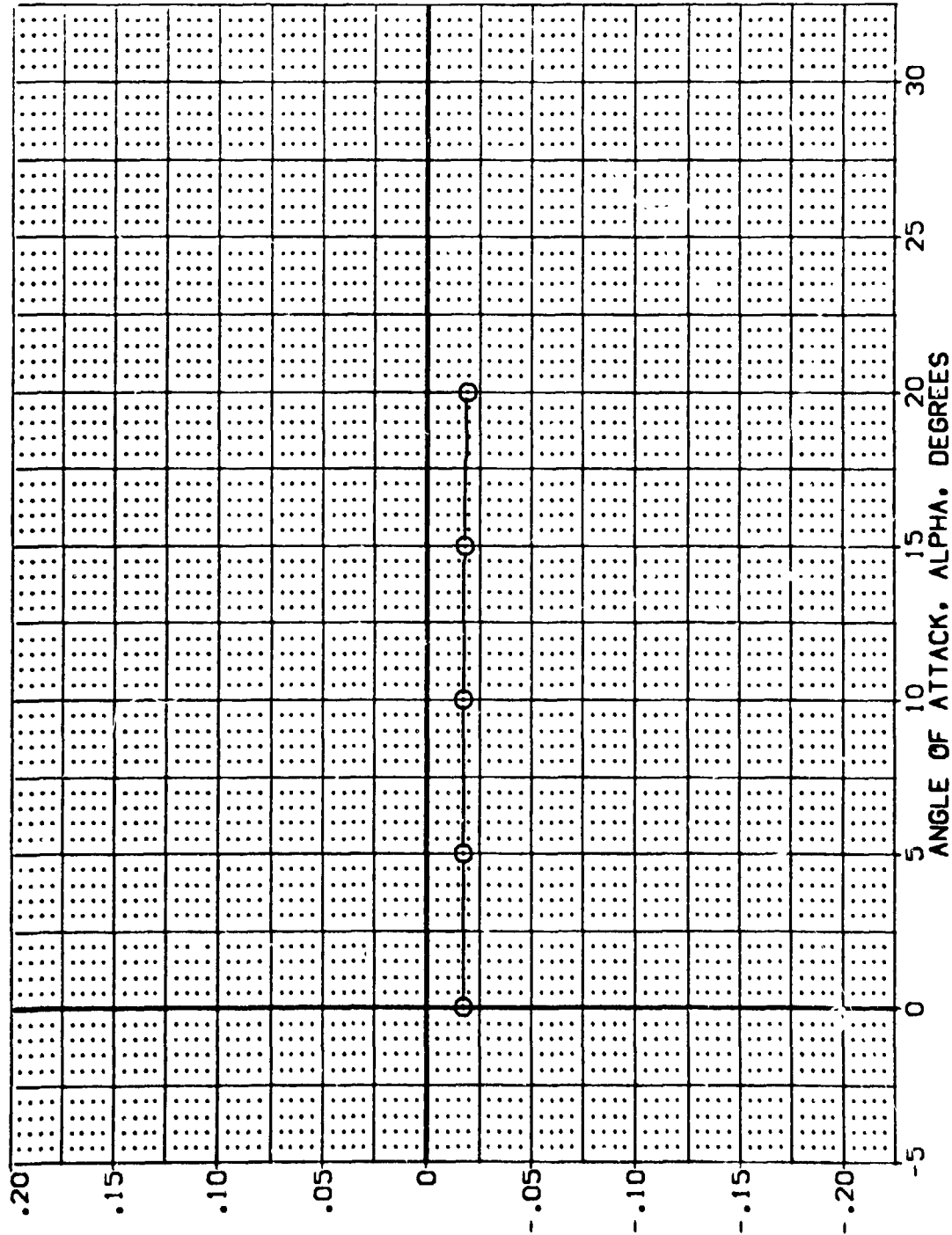


FIG 67 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 40 DEG FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
[R02194]	0A628 B26C9 M7F8 V116E28V85K9	.000	85.000	-12.000	-16.220	SREF 4.4119 SQ.FT.
[R02198]	0A628 B26C9 M7F8 V116E28V85K9	.000	85.000	-12.000	-7.560	LREF 19.2298 INCHES
[R02361]	0A628 B26C9 M7F8 V116E28V85K9	.000	85.000	-12.000	.000	BREF 37.9359 INCHES
						XMRP 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

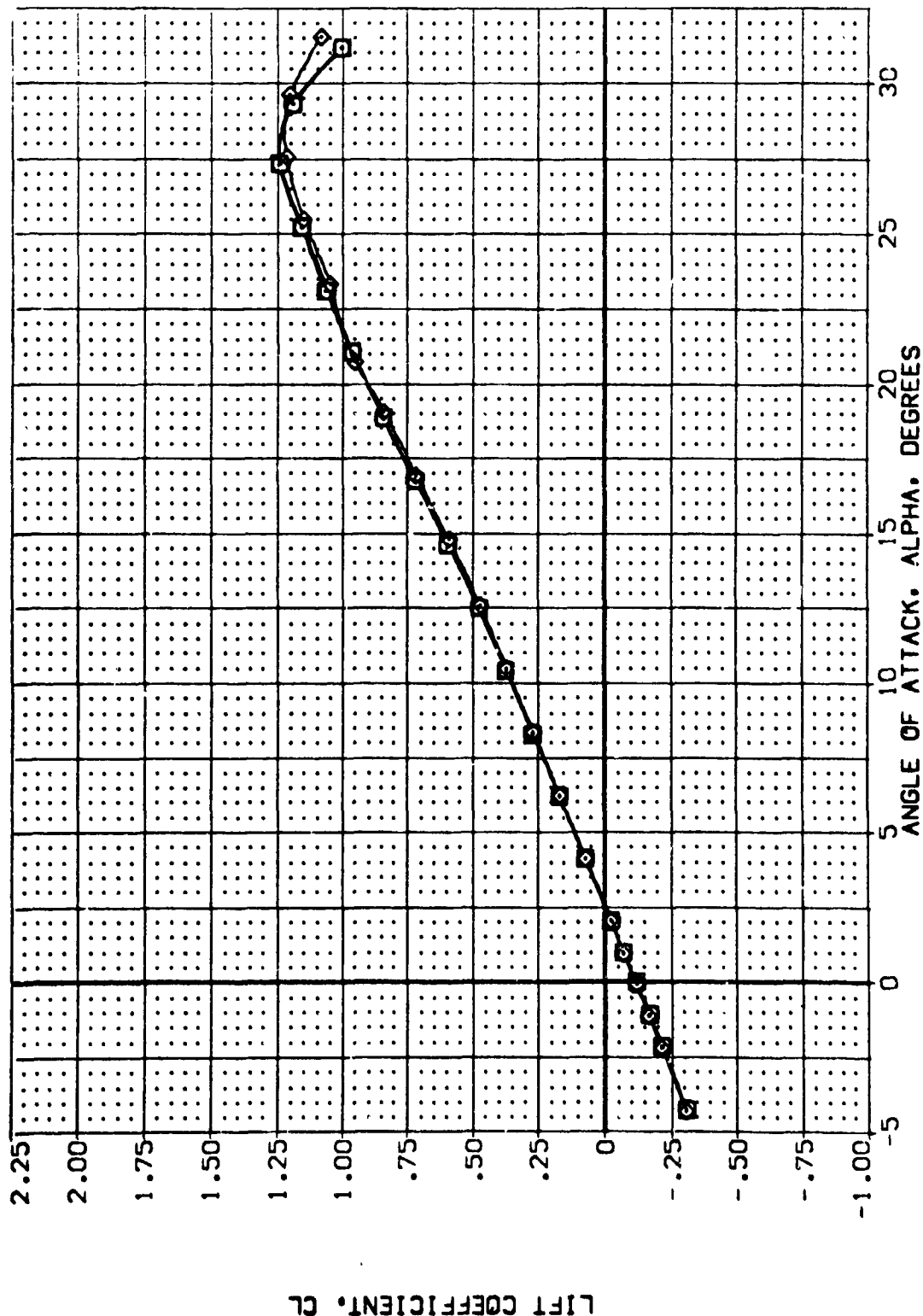


FIG 58 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(A)MACH = .26



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELEVON      SPODBK      BDFLAP      RUDDER      REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPODBK	BDFLAP	RUDDER	REFERENCE INFORMATION
(R02194)	QAS28 B26C9 M7F8 V116E28V8F5X9	.000	85.000	-12.000	-16.220	4.4119 SC.F.T.
(R02188)	QAS28 B26C9 M7F8 V116E28V8F5X9	.000	85.000	-12.000	-7.960	19.2299 INCHES
(R02361)	QAS28 B26C9 M7F8 V116E28V8F5X9	.000	85.000	-12.000	.000	37.9339 INCHES
						43.5974 INCHES
						.0000 INCHES
						15.1875 INCHES
						.0405 SCALE

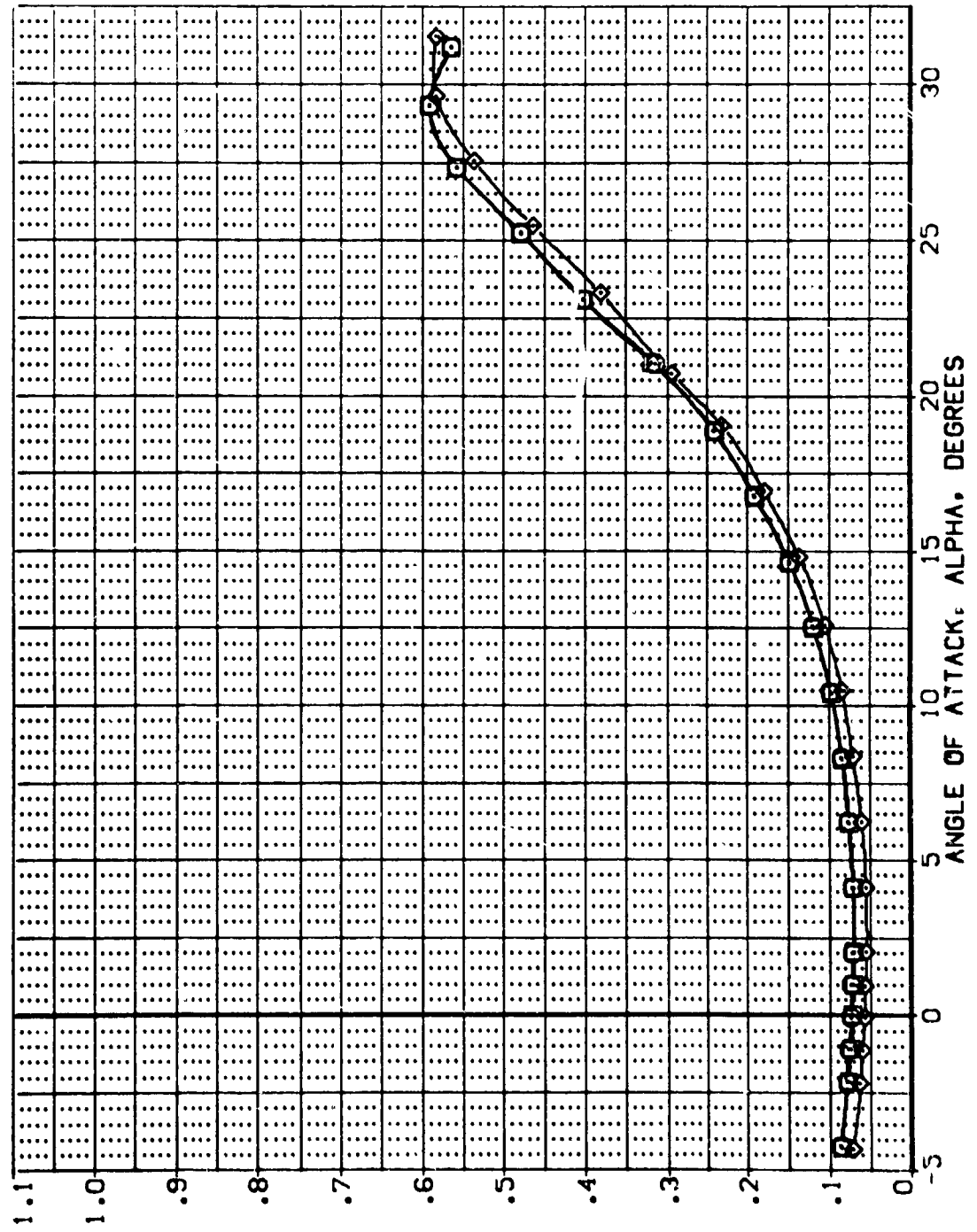


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDBRK	BOFLAP	RUDDER	REFERENCE INFORMATION
(R02194)	0A628 B26C9 M7F8 V116E28V85X9	.000	85.000	-12.000	-16.220	SREF 4.4119 SQ.FT.
(R02188)	0A628 B26C9 M7F8 V116E28V85X9	.000	85.000	-12.000	-7.960	LREF 19.2299 INCHES
(R02361)	0A628 B26C9 M7F8 V116E28V85X9	.000	85.000	-12.000	.000	BREF 37.9359 INCHES
						YMRP 43.5974 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

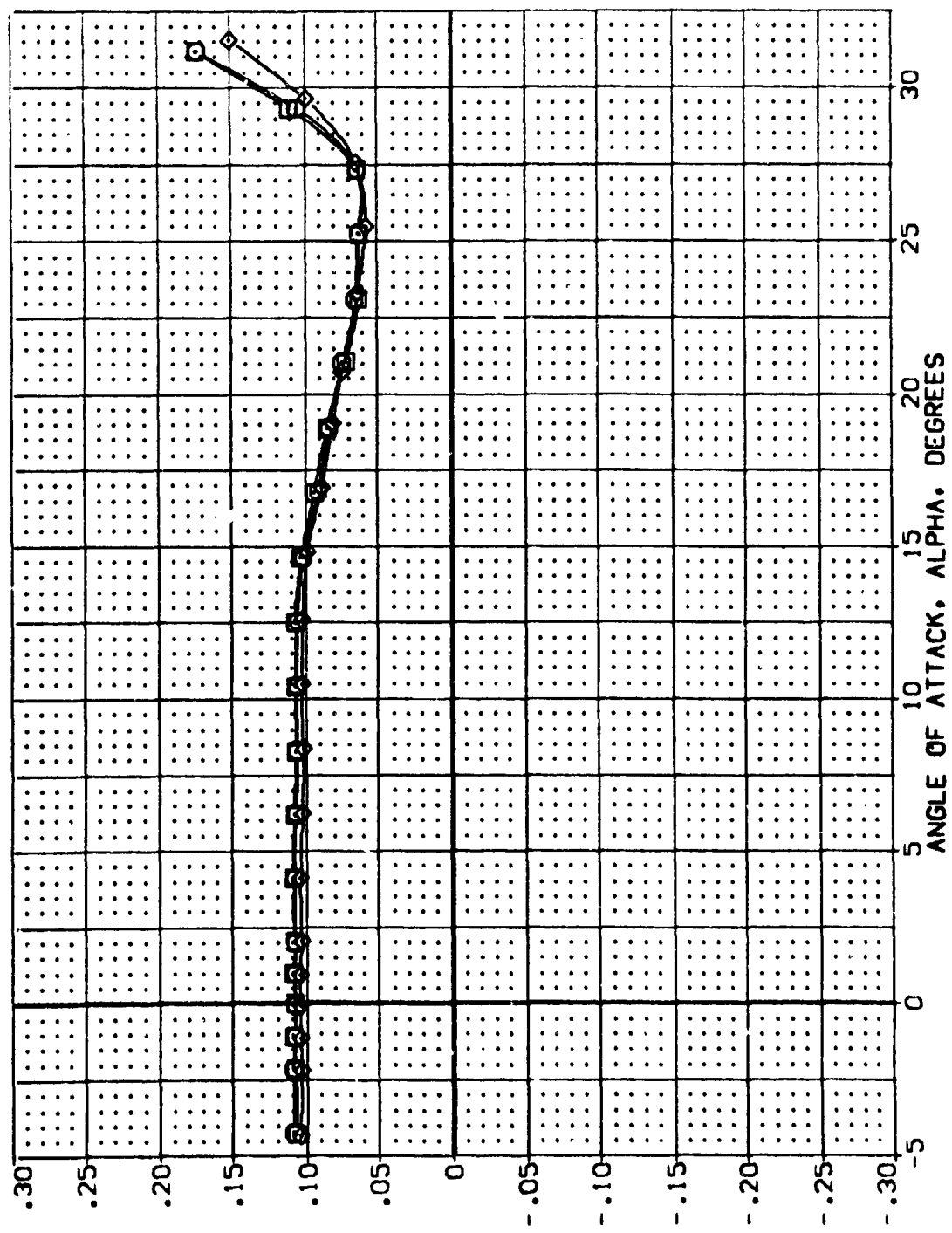


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(A)MACH = .26

4

DATA SET SYMBOL: (R02194) (R02188) (R02361)  
 CONFIGURATION DESCRIPTION: 04628 B26C9 M7F8 V116228V85X9 04628 B26C9 M7F8 V116228V85X9 04628 B26C9 M7F8 V116228V85X9  
 ELEVON: .000 .000 .000  
 SPDBRK: 85.000 85.000 85.000  
 BOFLAP: -12.000 -12.000 -12.000  
 RUOER: -16.220 -7.560 .000  
 REFERENCE INFORMATION: SREF 4.4119 SQ.FT. LREF 19.2299 INCHES BREF 37.9359 INCHES XMRP 43.5974 INCHES YMRP 15.1000 INCHES ZMRP 15.1875 INCHES SCALE .0405

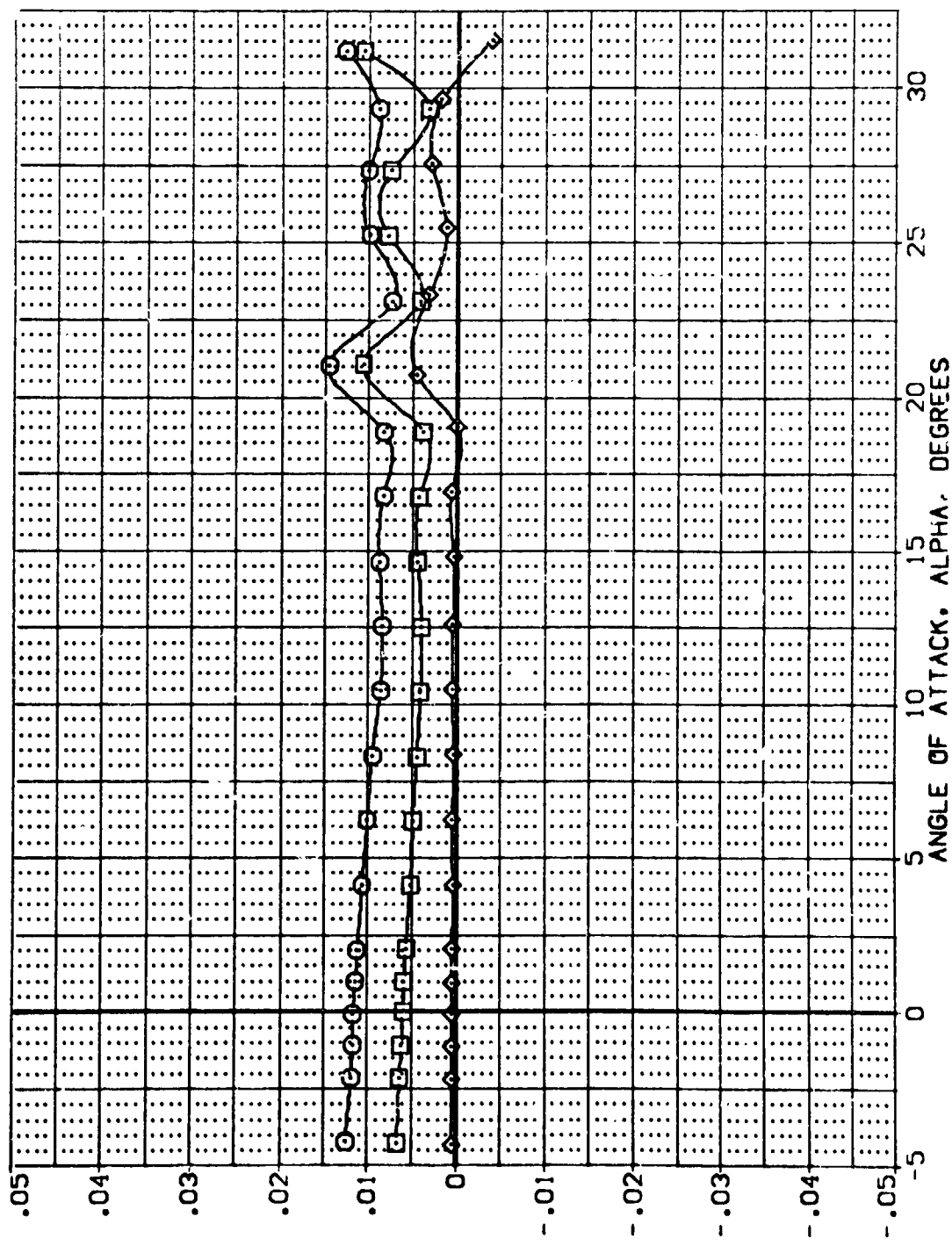


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL  
 (R01.94)  
 (R01.88)  
 (R01.361)

CONFIGURATION DESCRIPTION  
 QAS28 B26C3 M77-8 V116E78V85X9  
 QAS28 B26C3 M77-8 V116E78V85X9  
 QAS28 B26C3 M77-8 V116E78V85X9

ELEVON  
 .000  
 .000  
 .000

SPDRK  
 85.000  
 85.000  
 85.000

BOFLAP  
 -12.000  
 -12.000  
 -12.000

RUDDER  
 -16.270  
 -7.960  
 .000

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

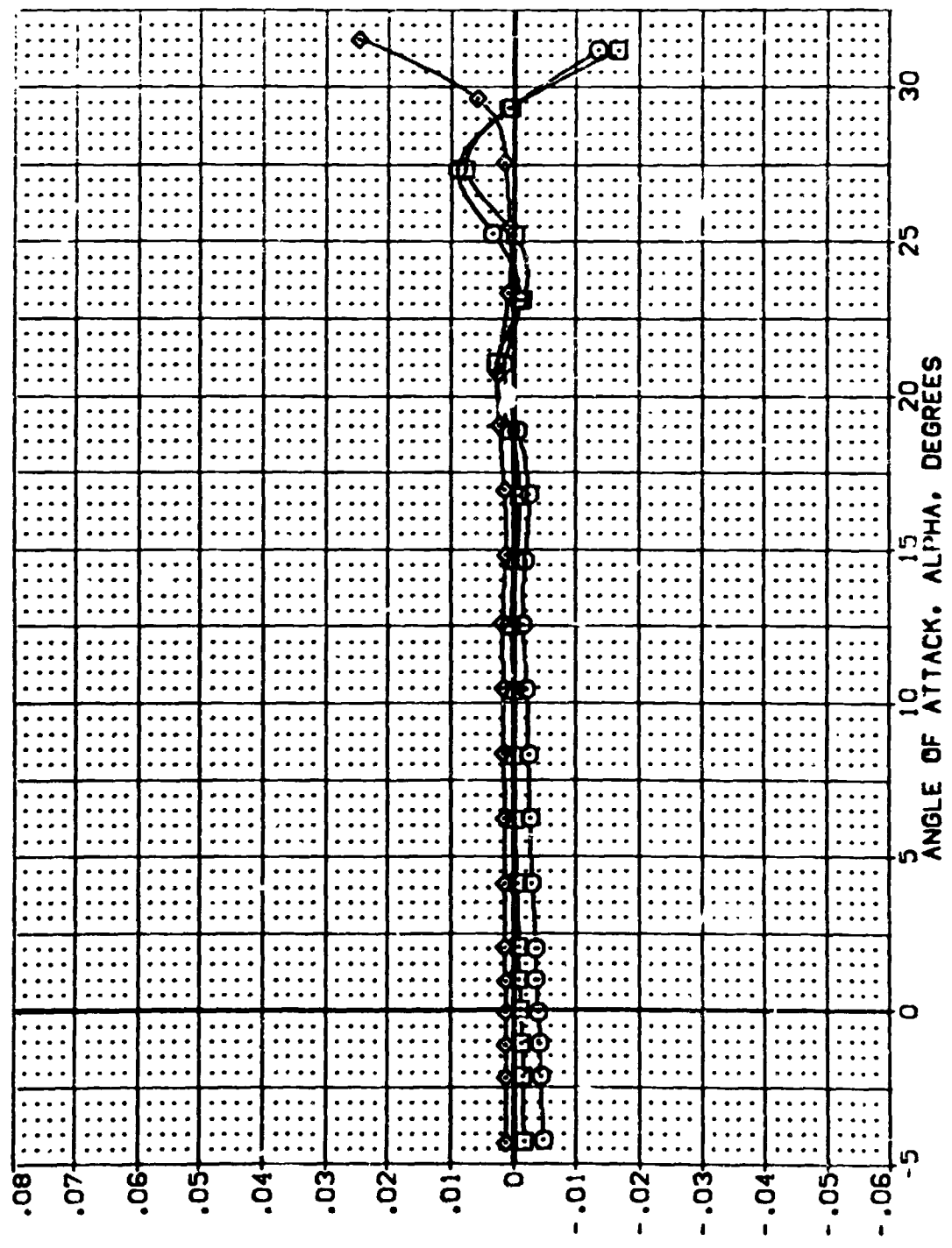
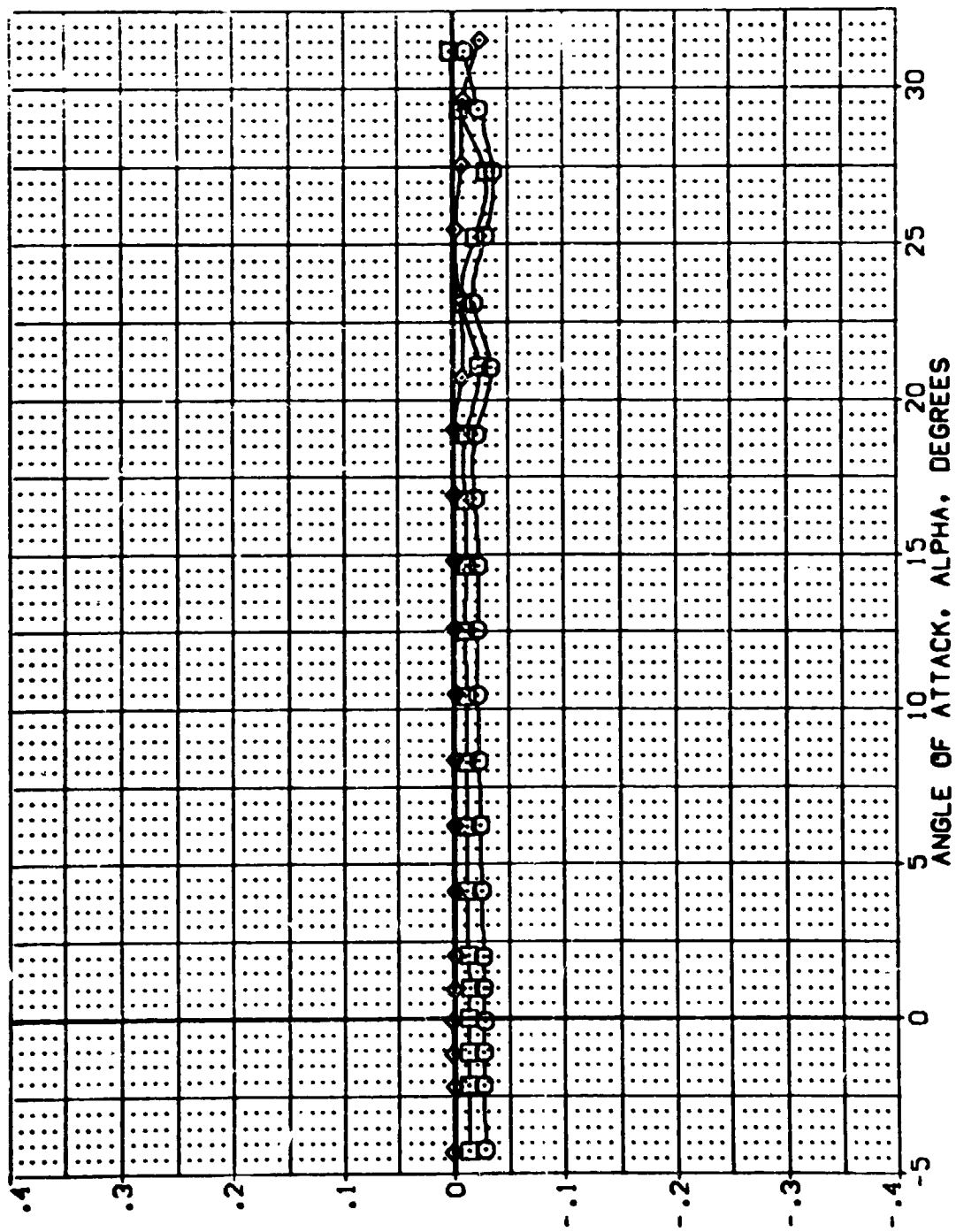


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPOONK	BOFLAP	RUDDER	REFERENCE INFORMATION
(R02184)	0A628 B26C9 M750 V116E28V85K9	.000	85.000	-12.000	-16.270	SREF 4.4119 50.57
(R02188)	0A628 B26C9 M750 V116E28V85K9	.000	85.000	-12.000	-7.360	LREF 19.2759 NCLES
(R02261)	0A628 B26C9 M750 V116E28V85K9	.000	85.000	-12.000	.000	BREF 37.5359 NCLES
						XREF 43.5974 NCLES
						YREF .0000 NCLES
						ZREF 15.1875 NCLES
						SCALE .0405



SIDE FORCE COEFFICIENT, CY

FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(A)MACH = .26

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z194)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	RUDDER	REF	REFERENCE INFORMATION
○	.000	.260	DEL VON	.000	20Z194	-16.220	REF	4.4119
		805 LAP	AIRLON	.000	20Z194	.000	REF	19.2209
		SPOROK	BETA	.000	20Z361	.000	REF	37.9579
							REF	43.5574
							REF	.0000
							REF	15.1875
							REF	.0405
							REF	SCALE

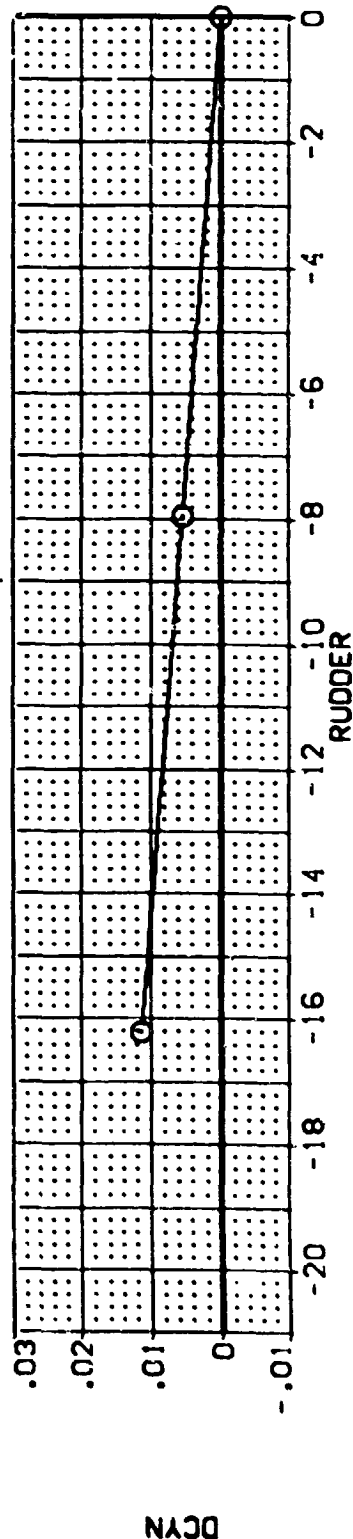
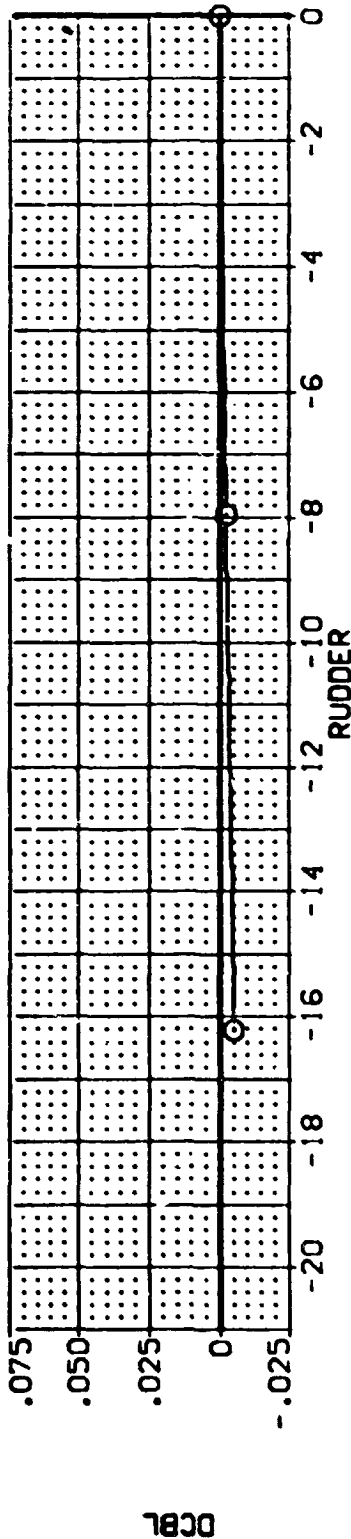
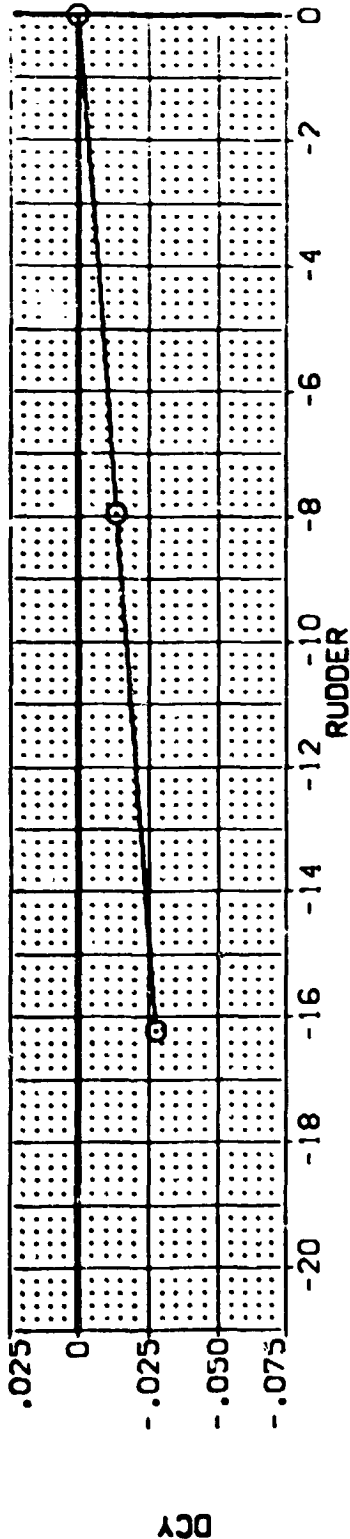


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE



0A62B B26C9 M7F8 W116E28V8R5X9 (20Z194)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	5.000	BDLAP	.260 DELVON	RUDDER	SG.F.T.
		SPOBRK	-12.000 AIRLON	RUDDER	INC.F.S
			60.000 BETA	RUDDER	INC.F.S
				RUDDER	INC.F.S
				RUDDER	INC.F.S
				RUDDER	SCALE
				RUDDER	

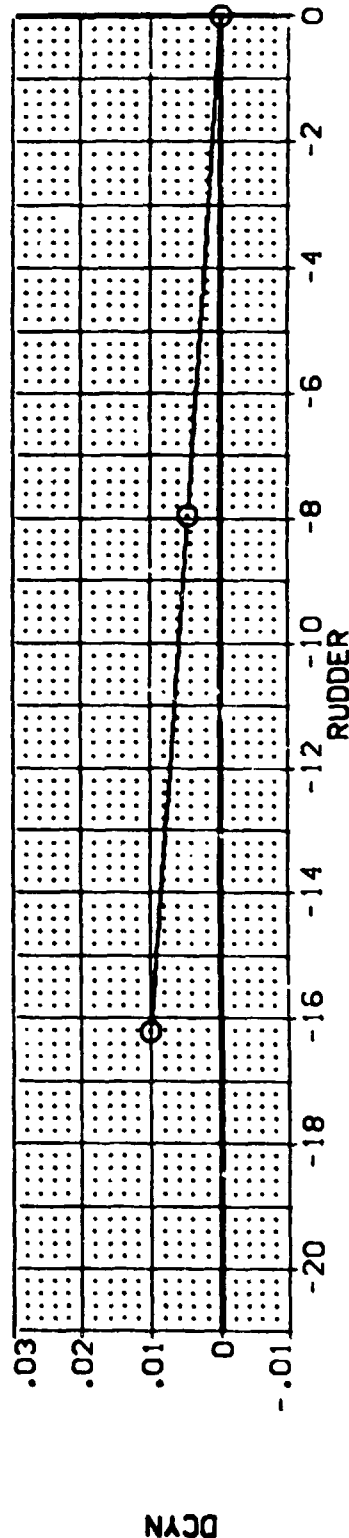
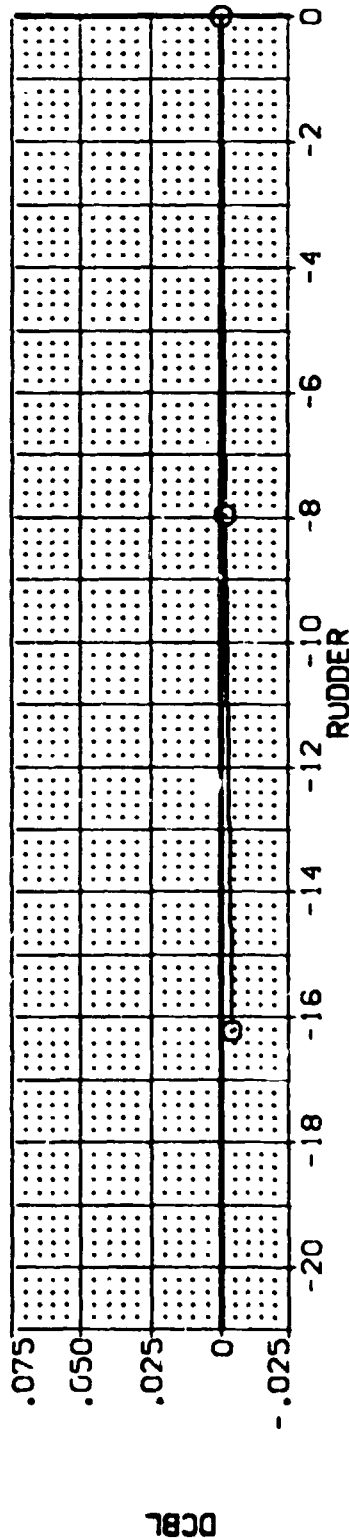
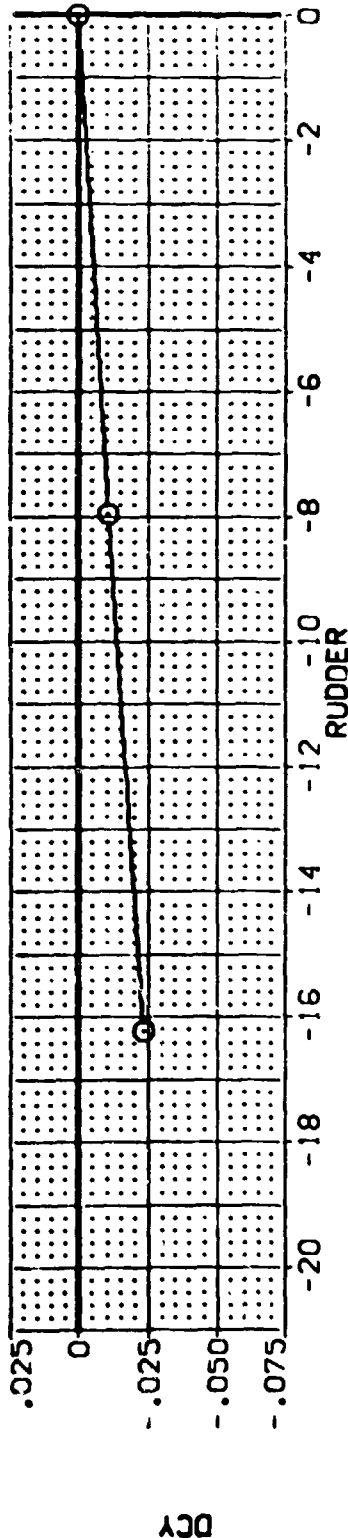


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(20Z194)

SDREF	4.4119	SC.FI.
LEFF	19.7299	INC.F\$
SRFF	37.9359	INC.F\$
IXHP	43.5974	INC.F\$
YHP	.0000	INC.F\$
ZHP	15.1875	INC.F\$
SCALE	.0405	SCALE

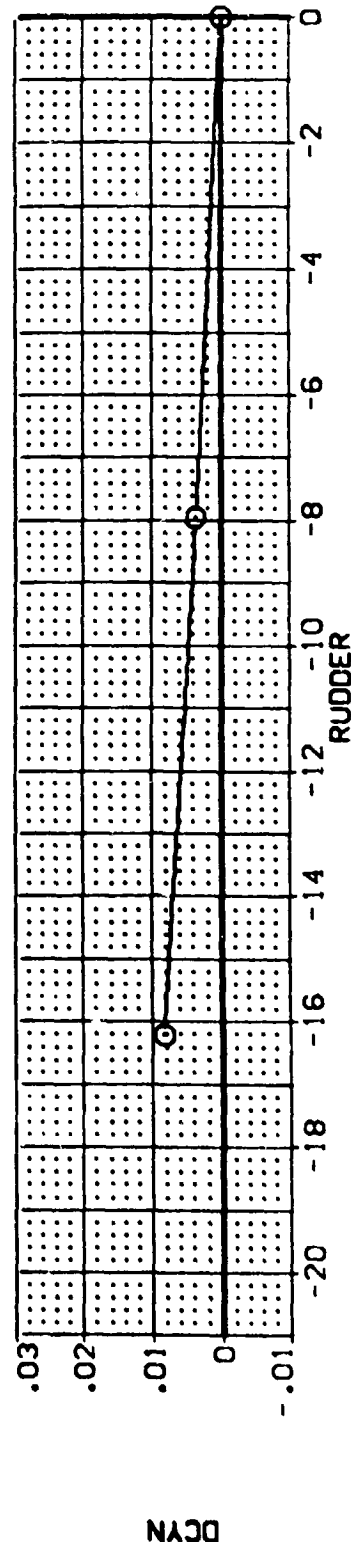
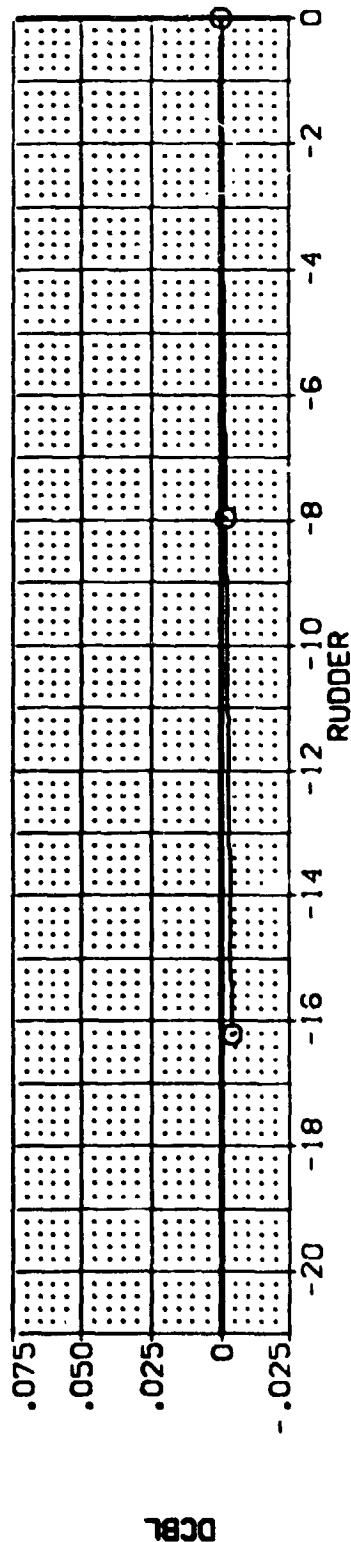
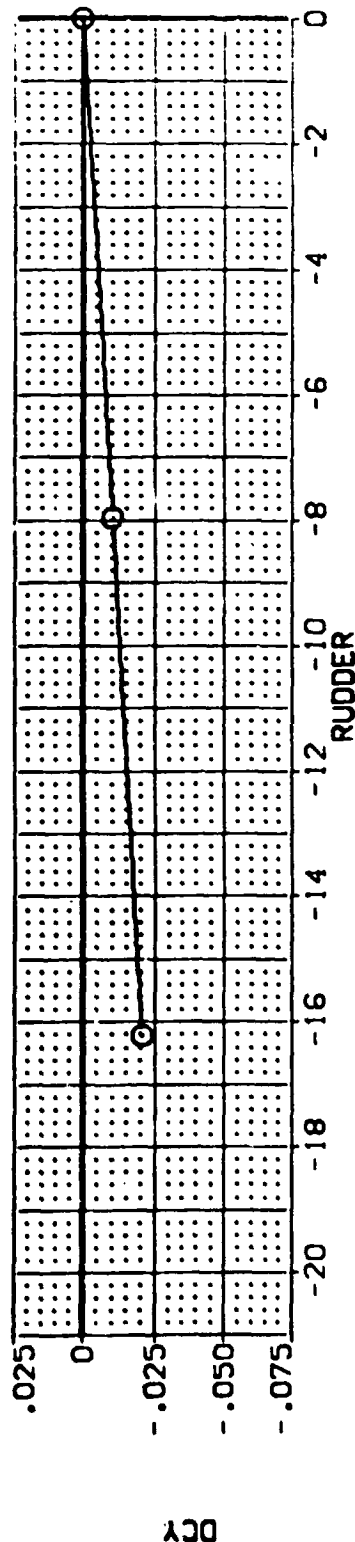


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

0A628 826C9 M7F8 W116E28V8R5X9 (20Z194)  
 SYMBO. ALPHA 15.000  
 O  
 REFERENCE INFORMATION  
 SO.FT. 4.4119  
 INC-ES 19.2299  
 INC-ES 37.9359  
 INC-ES 43.5874  
 INC-ES 0.000  
 INC-ES 15.1875  
 INC-ES .04CS  
 SCALE  
 DATA SOURCE  
 RUDDER -16.220  
 .000  
 DATASET 20Z194  
 .000 20Z194  
 .000 20Z361  
 PARAMETRIC VALUES  
 MACH .260 DELVON  
 BOFLAP -12.000 ALLRON  
 SPDRK 85.000 BETA

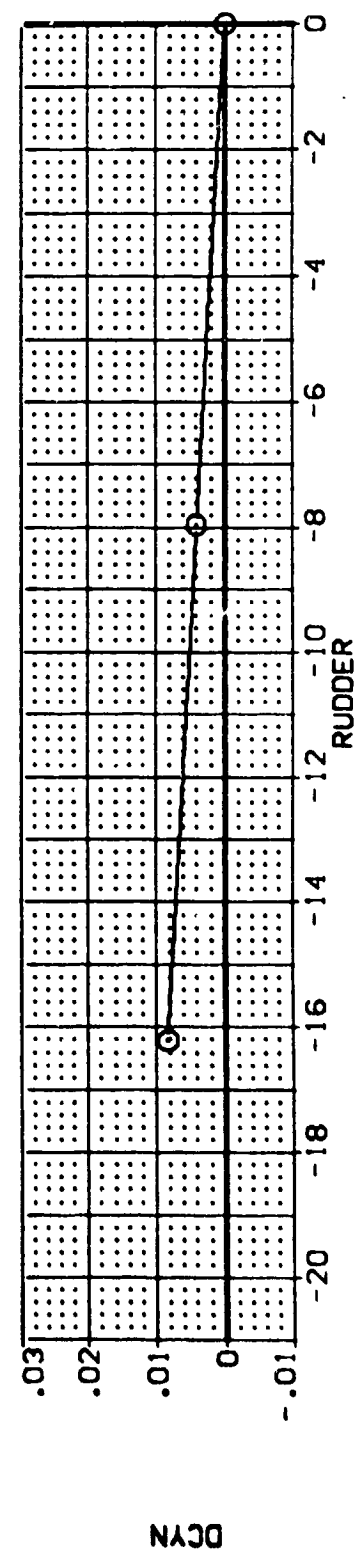
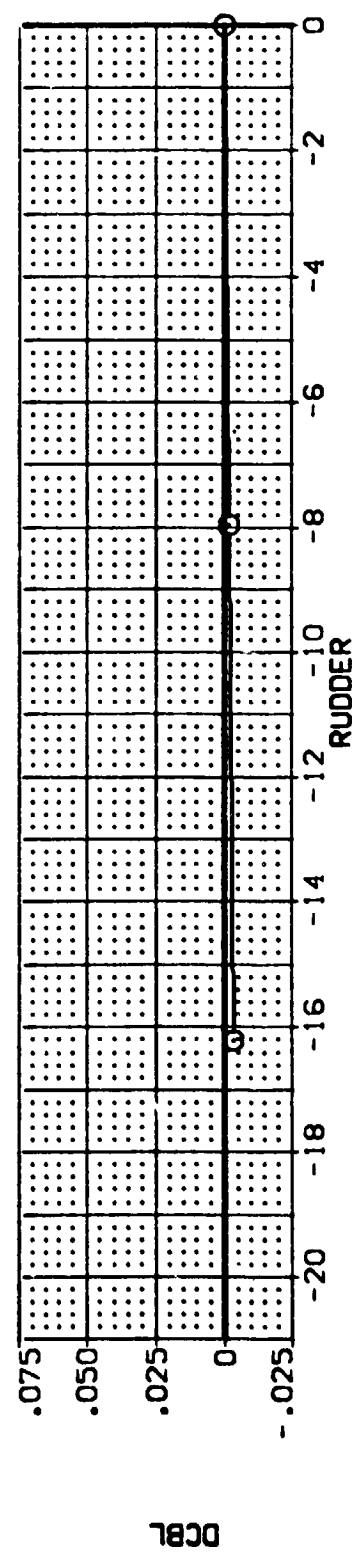
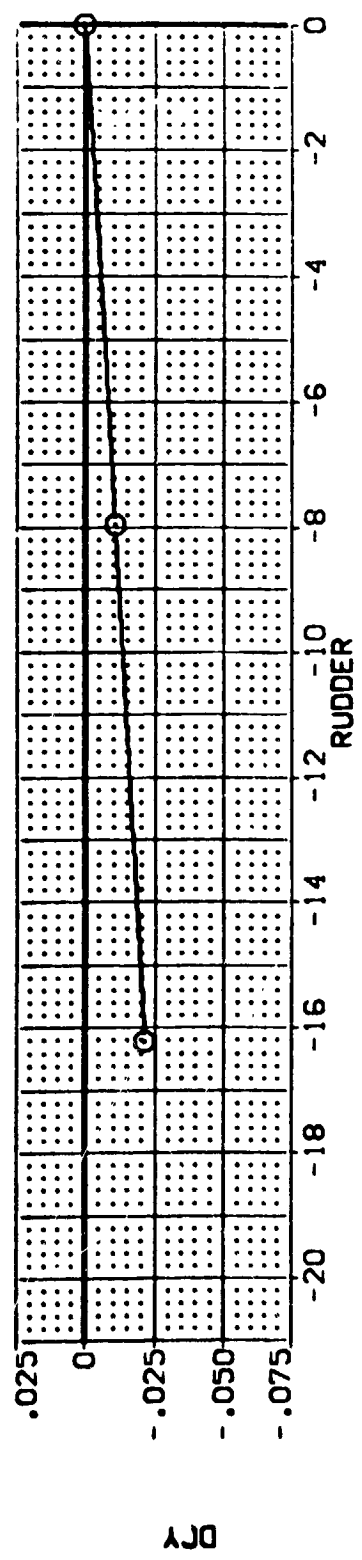


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z194)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
		MACH	.260	DELTA	.000	DATA SET	RJDDER	DATA SET	RJDDER	SCALE
O	20.000	BOFLAP	-12.000	AILRON	.000	20Z194	-16.220	20Z188	-7.960	19.2799
		SPDRK	85.000	BETA	.000	20Z361	.000			37.9359
										43.5974
										15.1875
										.0405

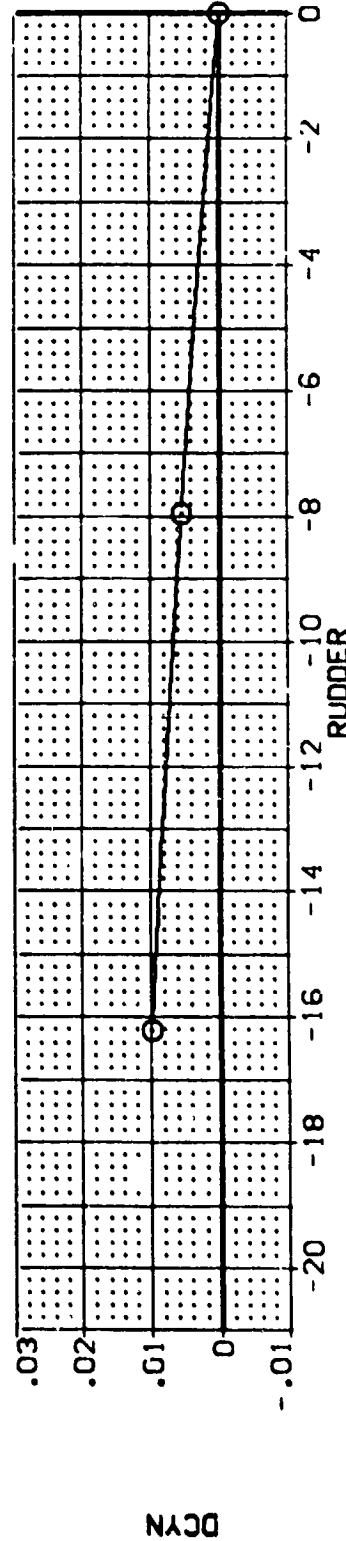
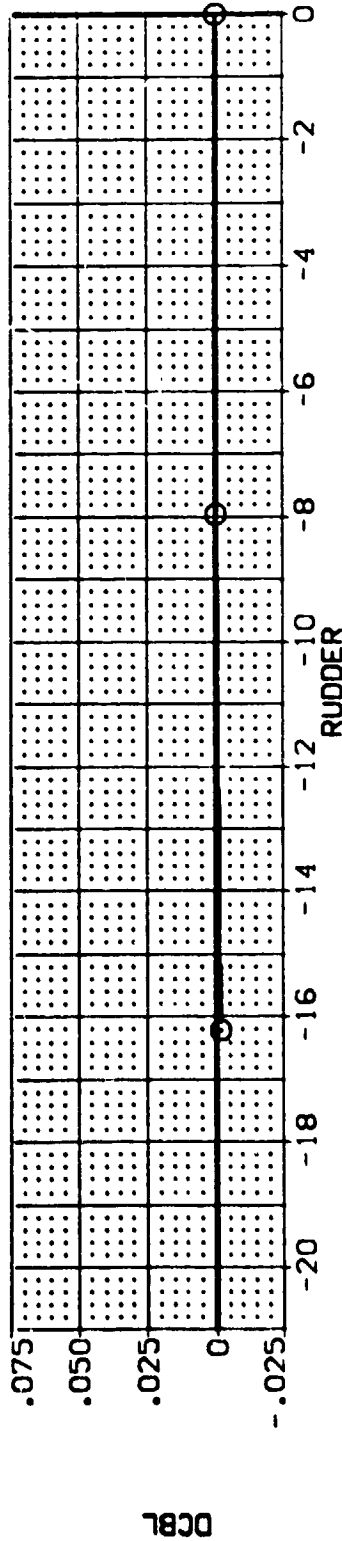
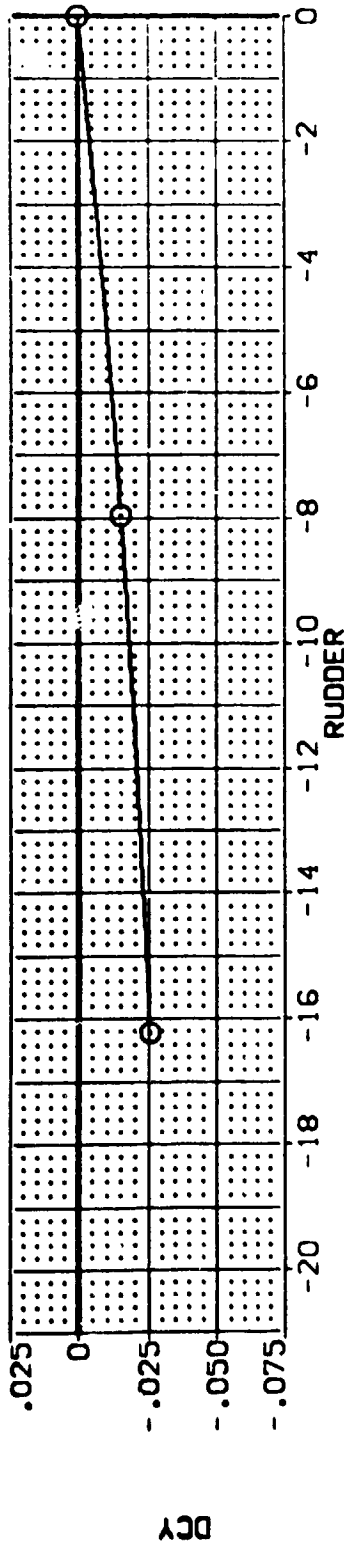


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

GA

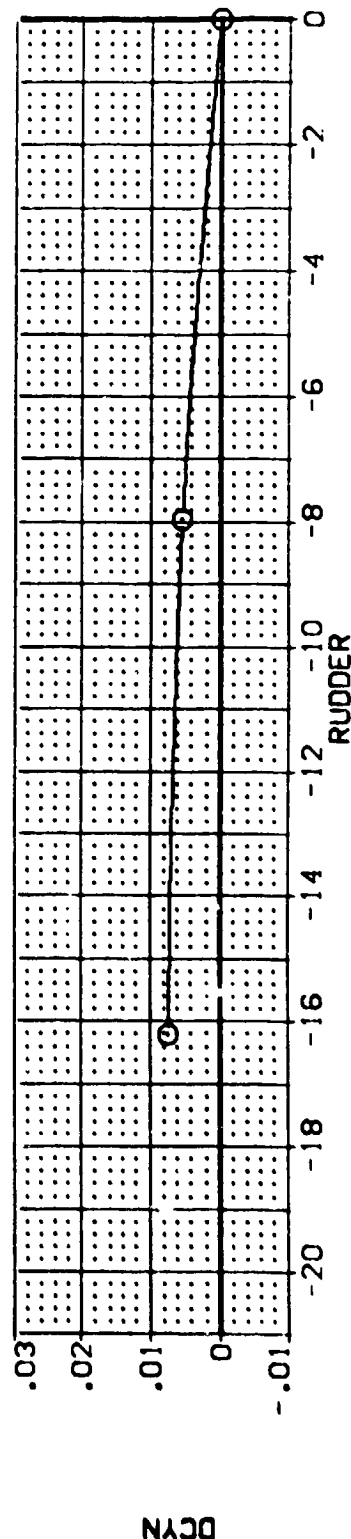
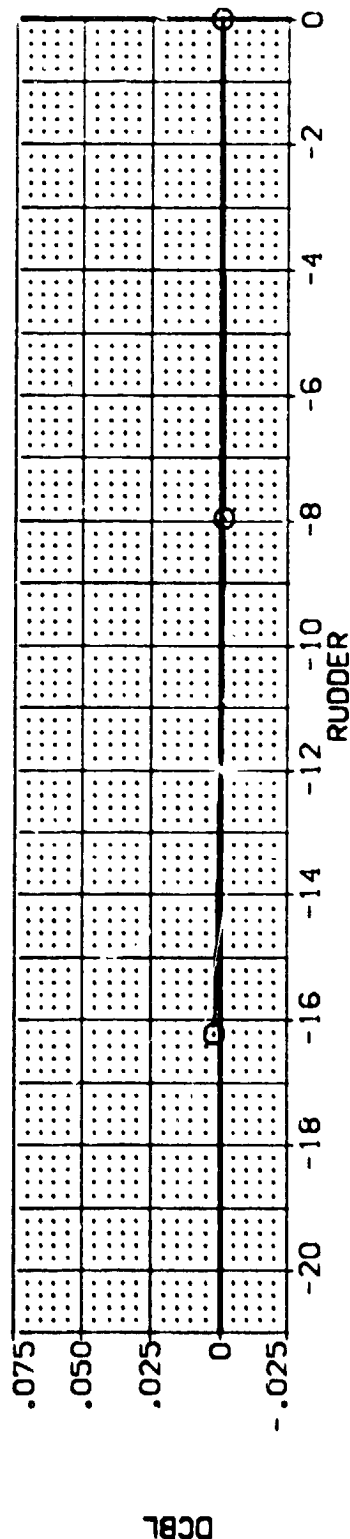
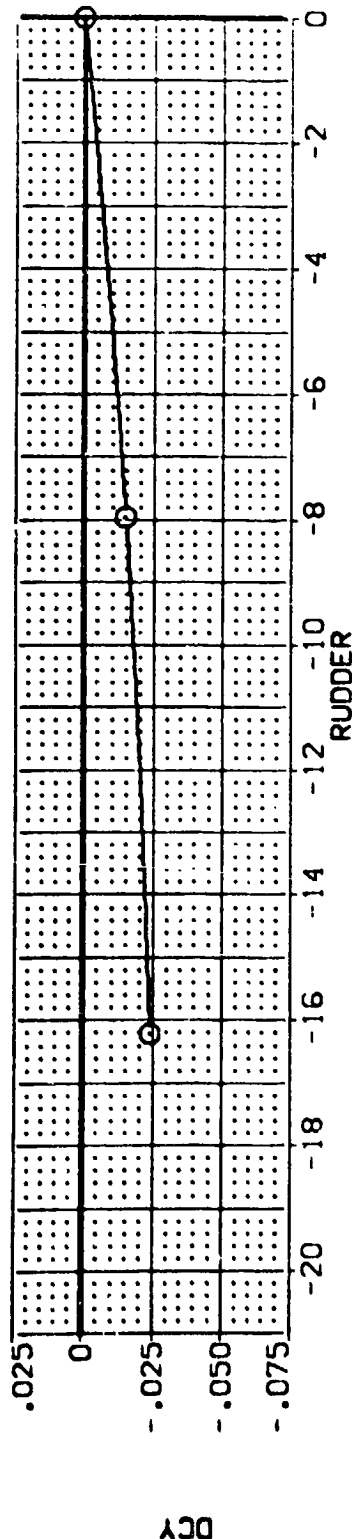
REFERENCE INFORMATION	
SREF	4.4119 SQ.FT.
LOF	19.2299 INCHES
PRF	37.9359 INCHES
XPR	43.5974 INCHES
YPR	0.0000 INCHES
ZPR	15.1875 INCHES
SCALE	.0405 SCALE

DATA SOURCE	
RUDER	DATASET
16.720	202189
.000	-7.960

VALUES	.000	DATASET
DELVON	.000	202194
AILEON	.000	202361
BETA	.000	

ALPHA	MACH	PARAMETRIC
25.000	BOFLAP	.260
	SPOBRK	-12.000
		85.000

**Symol**



**FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE**

0A62B B26C9 M7F8 W116E28V8R5X9 (20Z194)

SYMBOL	ALPHA	MACH	BOFLAP	SPOBRK	PARAMETRIC VALUES	DATA SOURCE	DATA SET	RUDDER	RUDDER	RUDDER	SCALE	REFERENCE INFORMATION
O	30.000				.250 DELVON -12.000 AILRON 85.000 BETA	.000 DATASET .000 20Z194 .000 20Z361	20Z188	-16.220	-7.960	SREF LREF BREF XMRP YMRP ZMRP	.0405	SO.FT INCHES INCHES INCHES INCHES INCHES INCHES

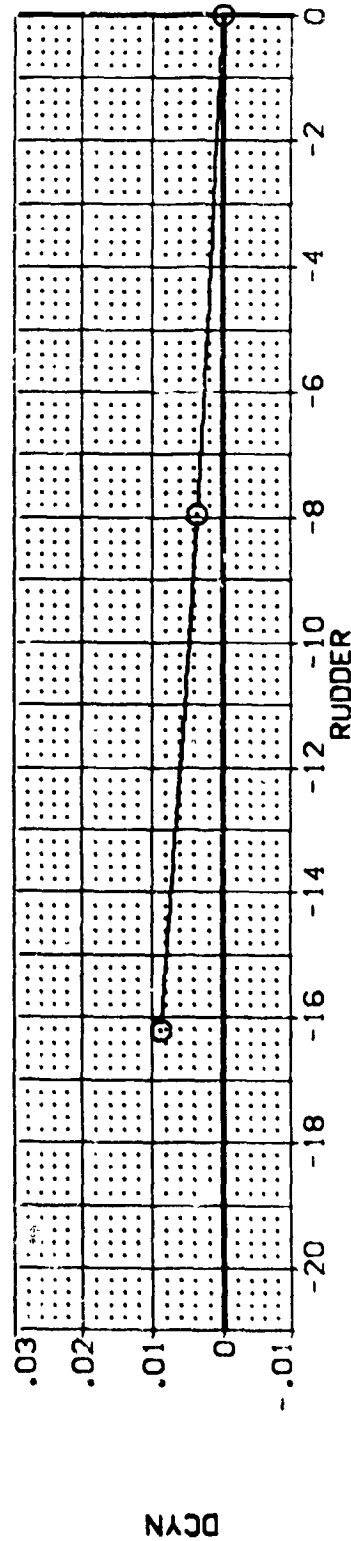
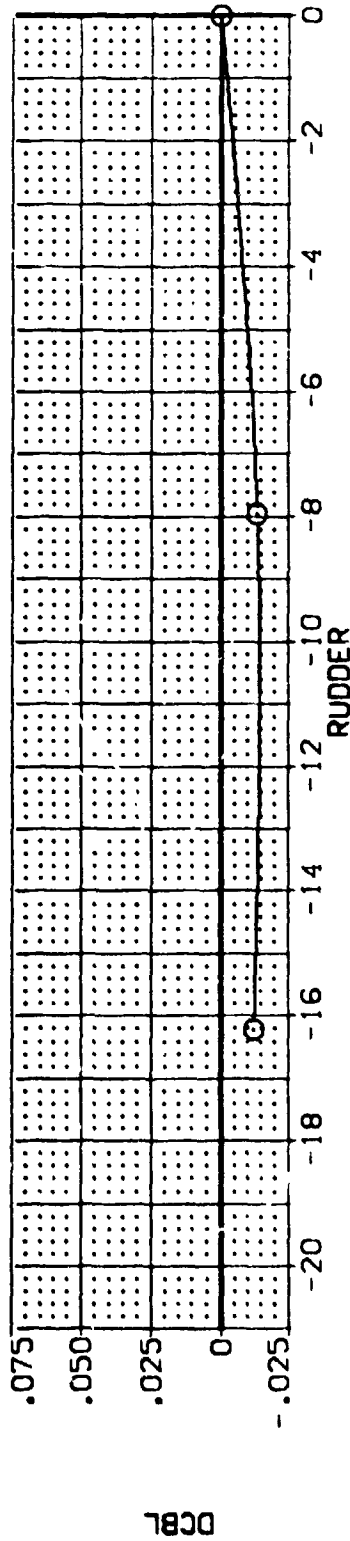
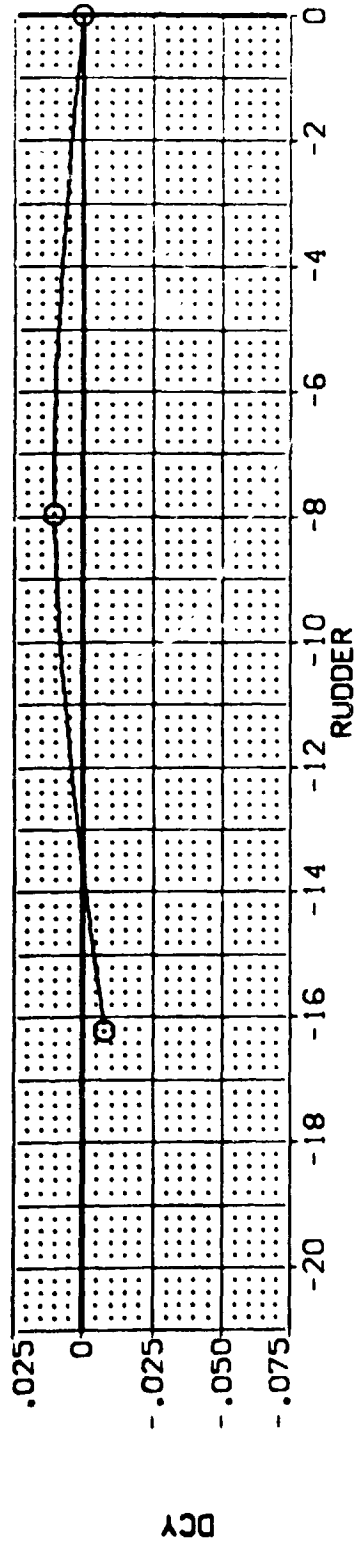


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z194)

PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
SYMBOL	ALPHA	MACH	BDFLAP	SPDRK	.260	DELVDN	.000	DATASET	RUDDER	SREF	SO.FT
O	.000				-12.000	A1LRON	.000	20Z194	-7.560	LREF	INCHES
					65.000	BETA	.000	20Z361		BREF	INCHES
										YMRP	INCHES
										ZMRP	INCHES
										SCALE	SCALE

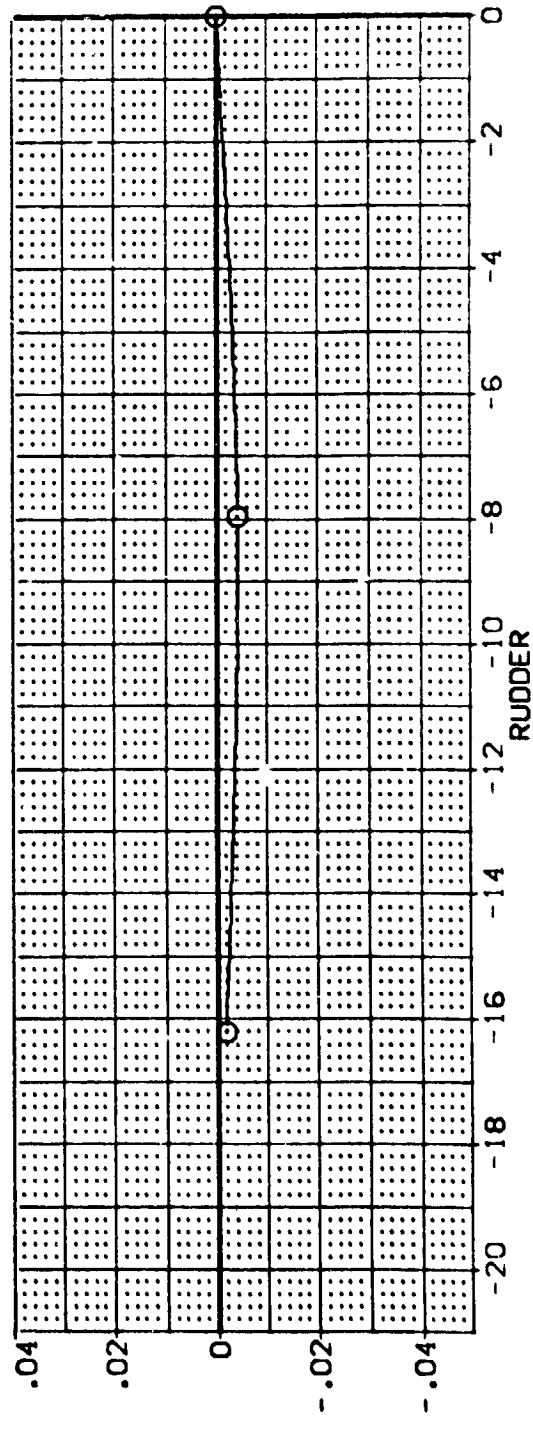
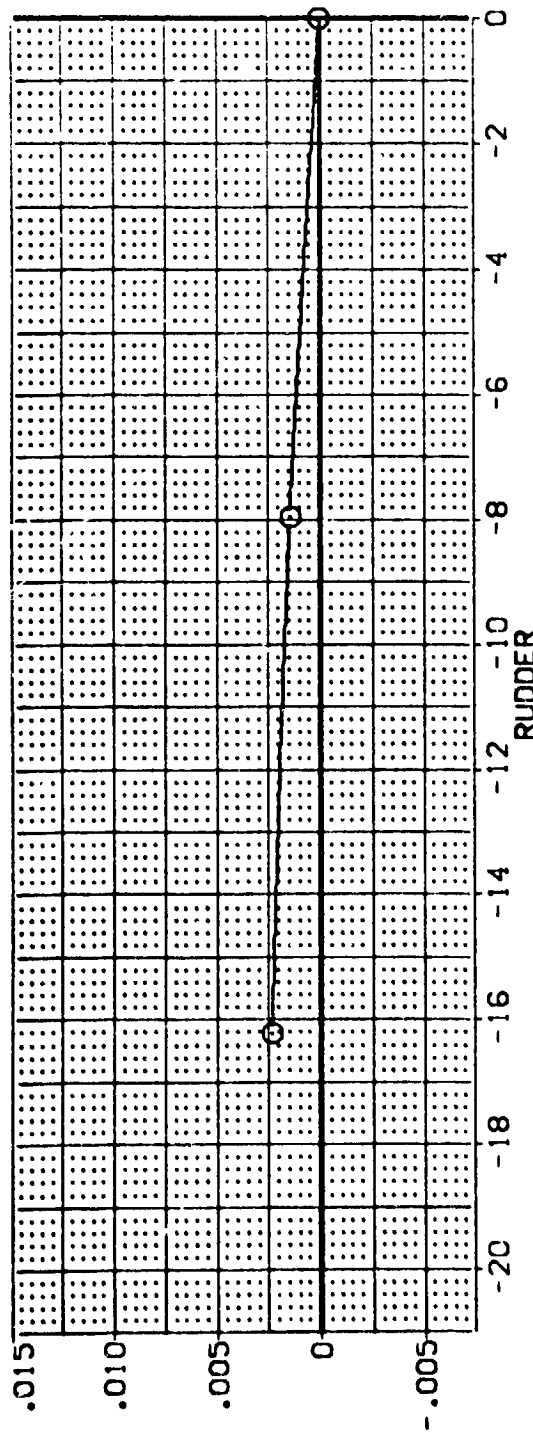


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(202194)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	BOFLAP	SPOBRK	PARAMETRIC VALUES	DATA SOURCE	DATA SET	RUDDER	SREF	REFERENCE INFORMATION
0	5.000	.260	-12.000	85.000	DELTON AILRON BETA	RUDDER	202194 202361	-16.220 .000	LREF BREF XMRP YMRP ZMRP SCALE	4.4119 19.2359 37.9359 43.5974 .0000 15.1875 .0405
										SO.F.T. INCHES INCHES INCHES INCHES INCHES INCHES SCALE

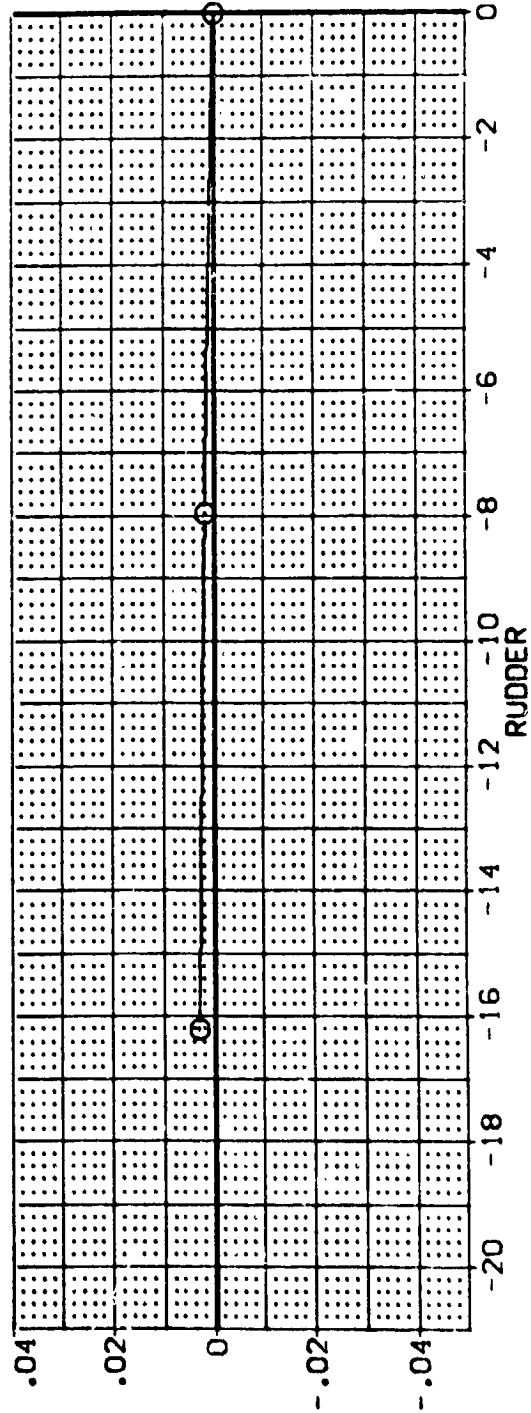
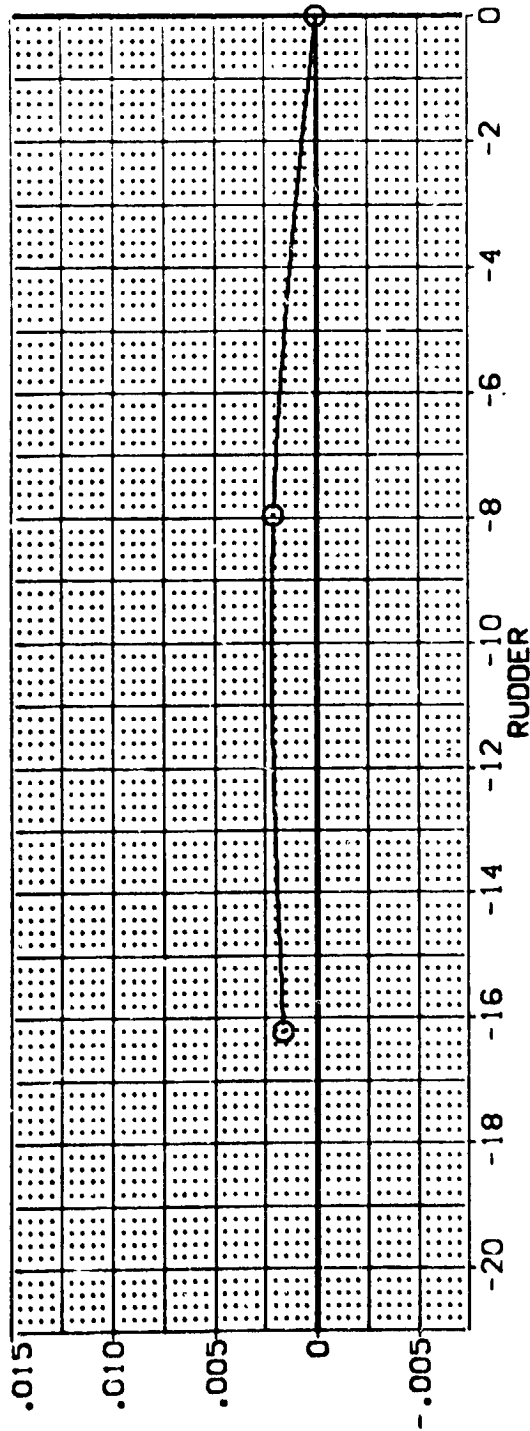


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE



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0A628 B26C9 M7F8 W116E28V8R5X9 (20Z194)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
O	15.003		.250	DELTA	.000	DATA SET	RUDDER	SREF	4.4119	SC.FT.	
		80FLAP	-12.000	ALLRON	.000	20Z194	-7.960	LRP	19.2299	INCHES	
		SPOARK	65.000	BETA	.000	20Z361		MRP	37.9359	INCHES	
								YMRP	43.5974	INCHES	
								ZMRP	.0000	INCHES	
								SCALE	15.1875	INCHES	
									.0405	SCALE	

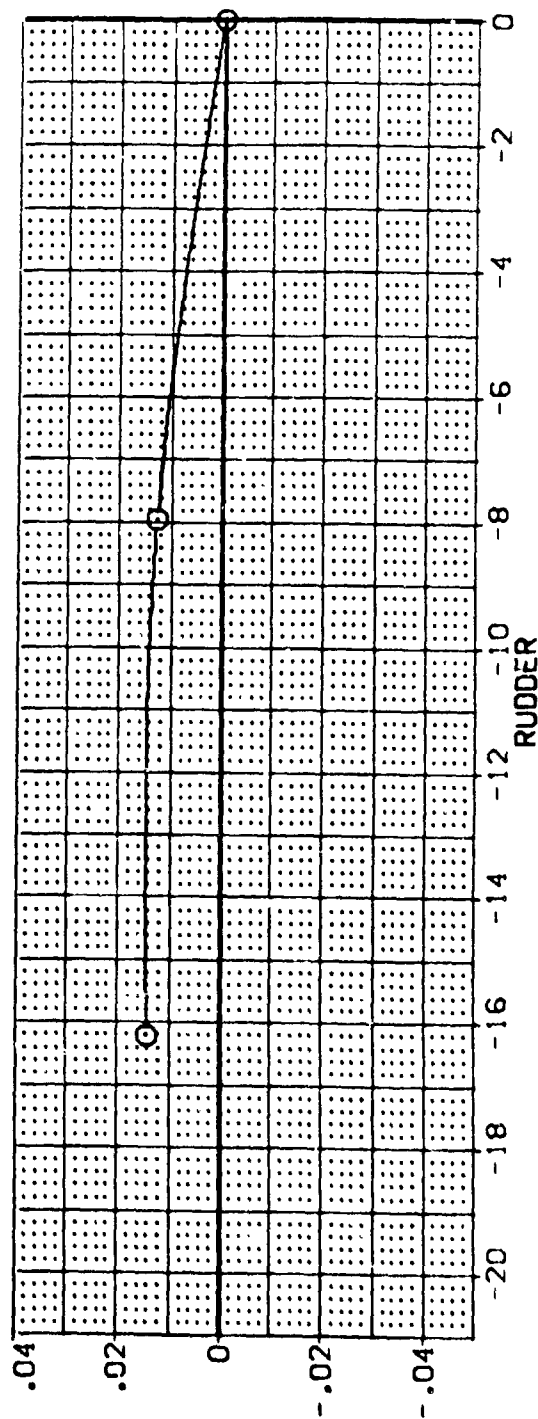
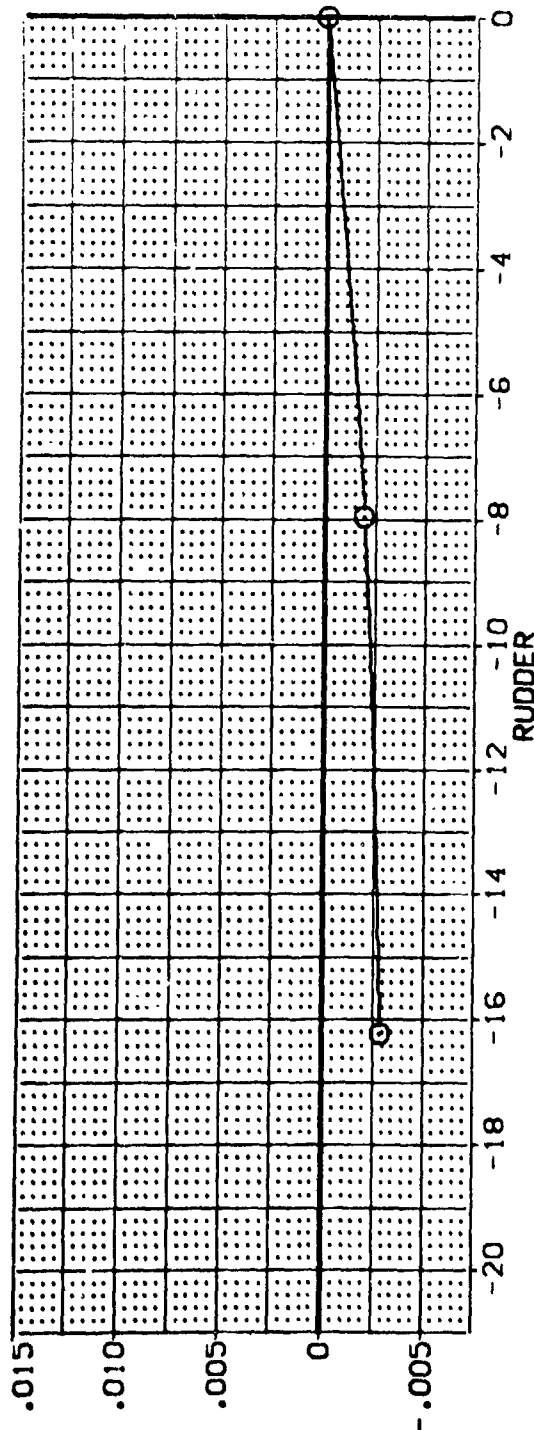


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

0A628 B26C9 M7F8 W116E28V8R5X9 (20Z194)

SYMBOL  
O

ALPHA  
20.000

MACH  
BOFLAP  
SPDRK

PARAMETRIC VALUES  
.260 DELVON  
-12.000 AILRON  
65.000 BETA

DATA SOURCE  
.000 DATASET  
.000 20Z194  
.000 20Z361

RUDDER  
-16.220  
.000

REFERENCE INFORMATION  
SREF 4.4119  
LREF 19.2298  
XMRP 37.9339  
YMRP 43.5574  
ZMRP .0000  
SCALE 15.1875  
INCHES .0405

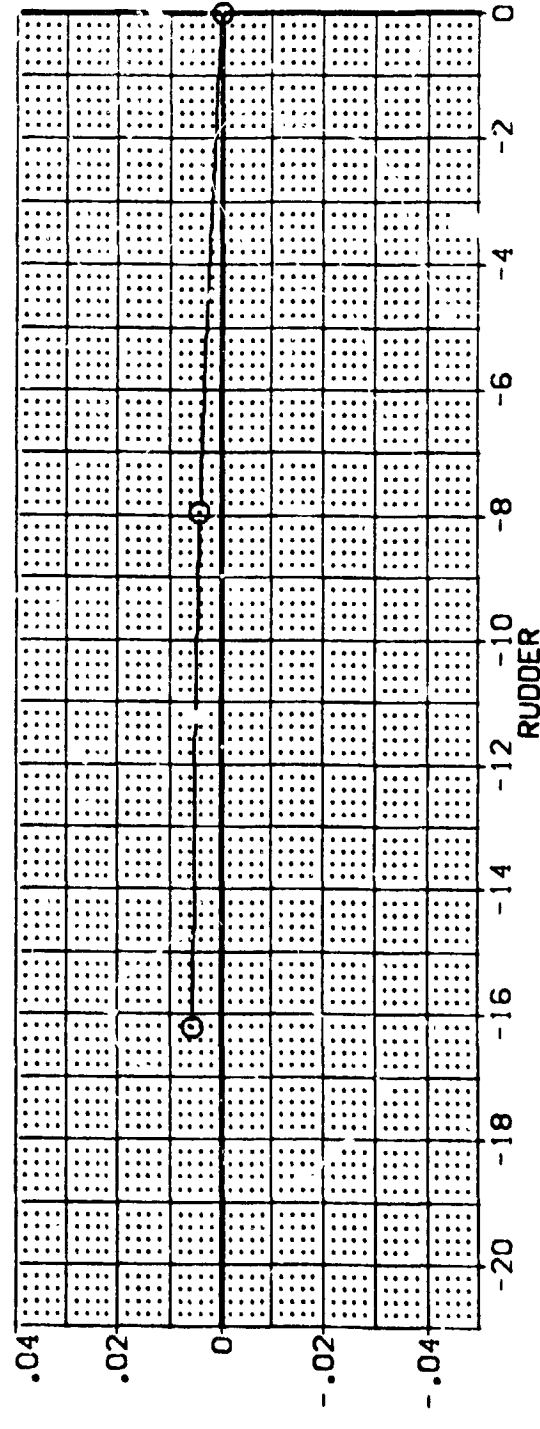
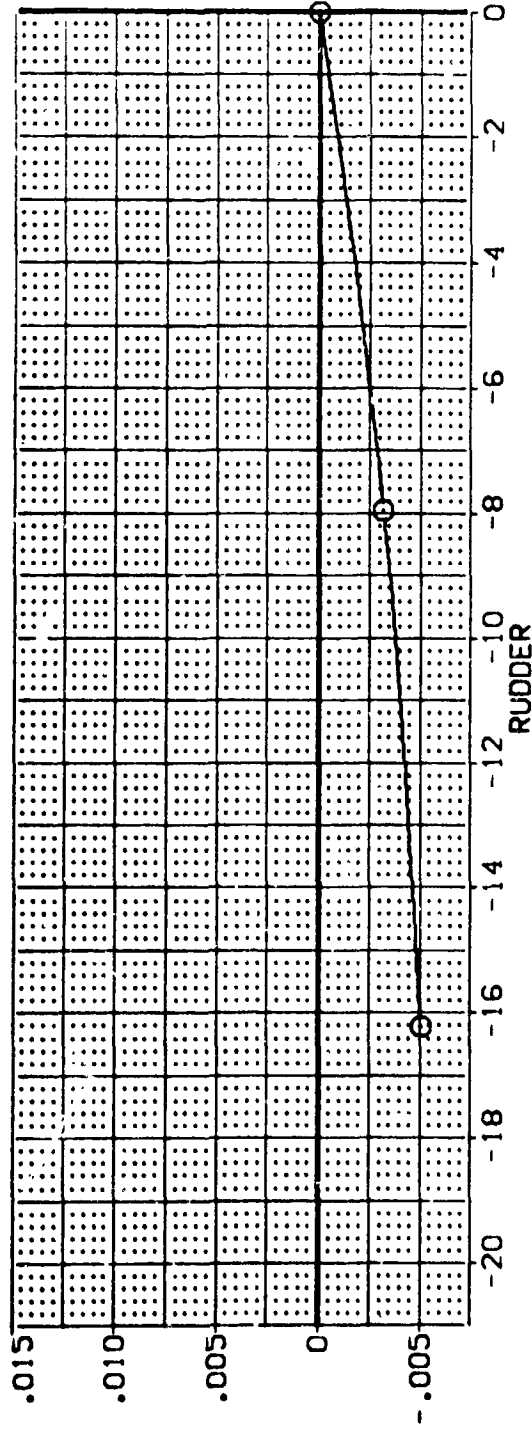


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

(20Z194)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
○	25.000		.260	DELTA	.000	DATA SET	RUDDER	SREF	4.4119	SO.F1	
		BOFLAP	-12.000	AILRON	.000	20Z194	-7.960	REF	19.2299	INC-ES	
		SPOBRK	85.000	BETA	.000	20Z251		REF	37.9359	INC-ES	
								YREF	43.5974	INC-ES	
								ZREF	.0000	INC-ES	
								YREF	15.1875	INC-ES	
								SCALE	.0105	SCALE	

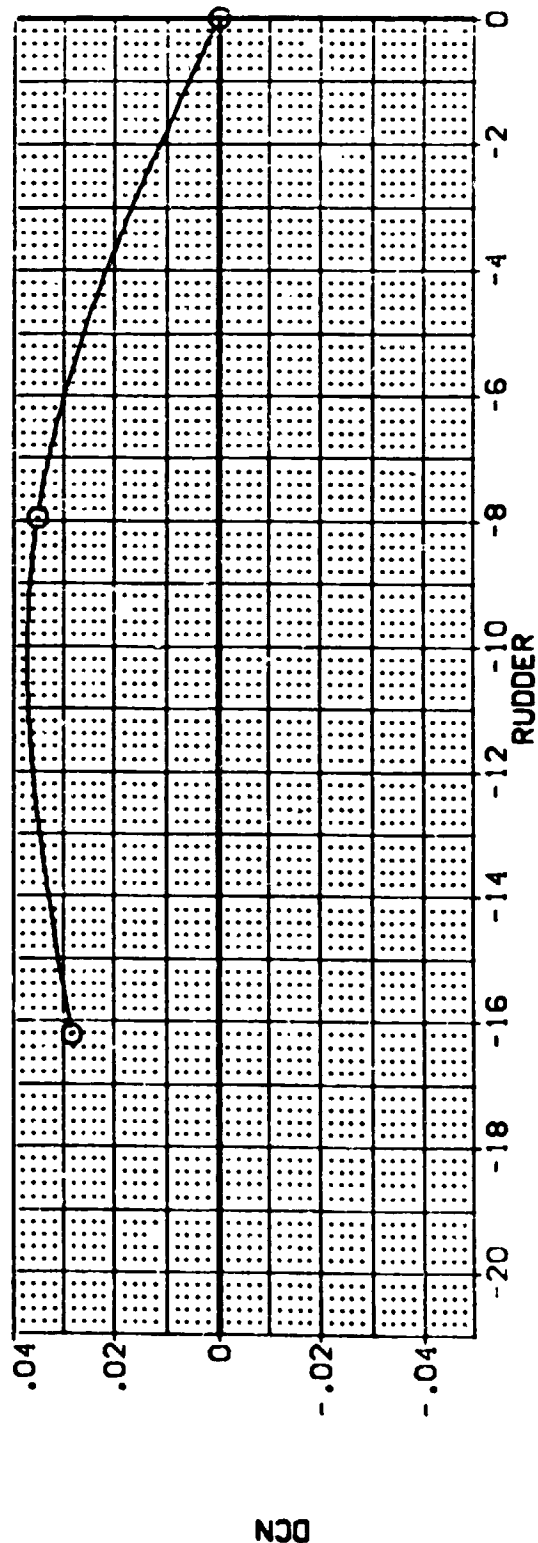
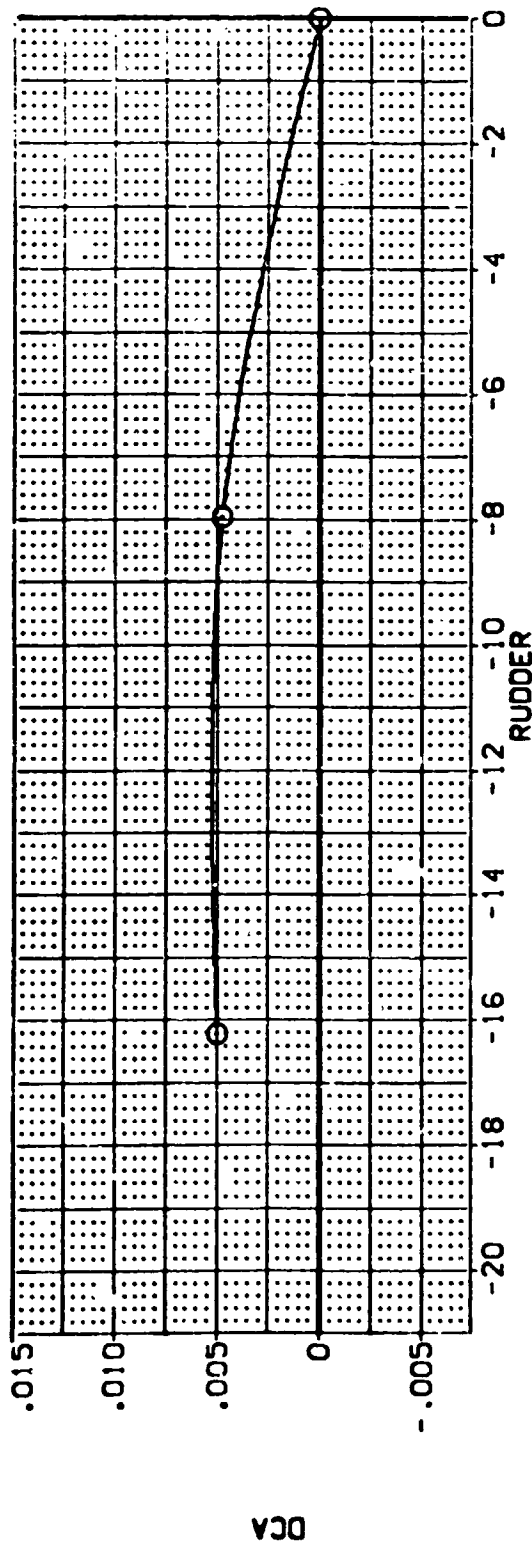


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

0A62B B26CS M7F8 W116E28V8R5X9 (20Z194)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	30.000	80° LAP	.260	DELTA	.000	02194	REF	4.4119
		SPDRK	-12.000	AILRON	.000	20Z194	REF	19.2799
			85.000	BETA	.000	20Z361	REF	37.9379
							REF	43.5974
							REF	15.0000
							REF	15.1875
							REF	SCALE
							REF	.0405

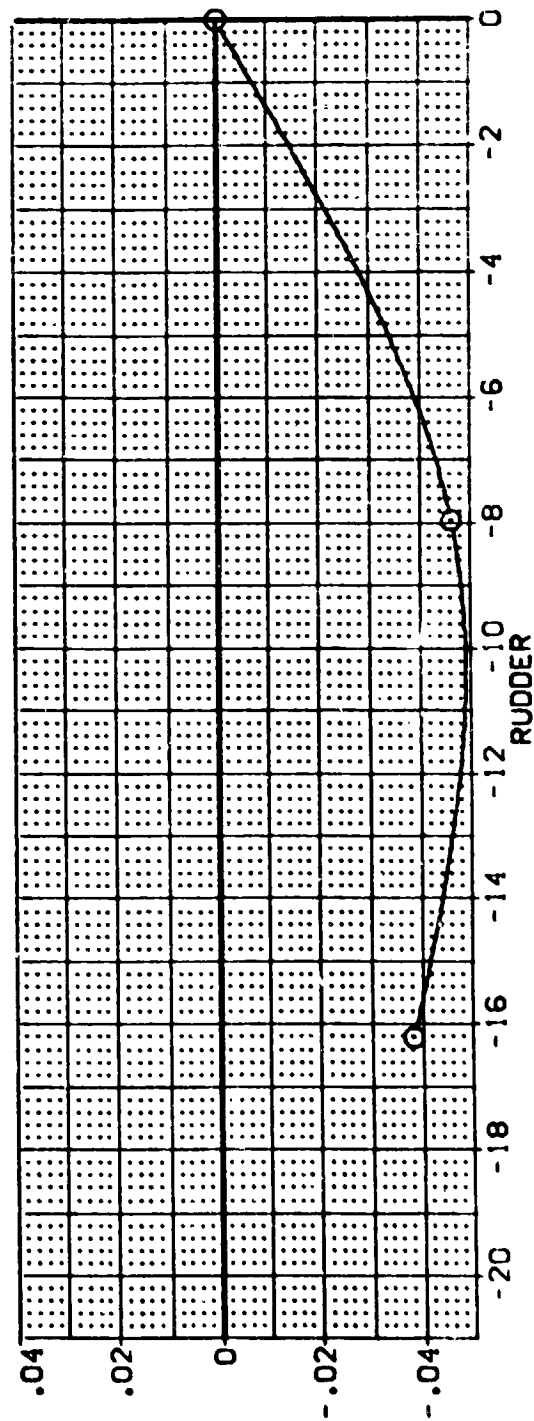
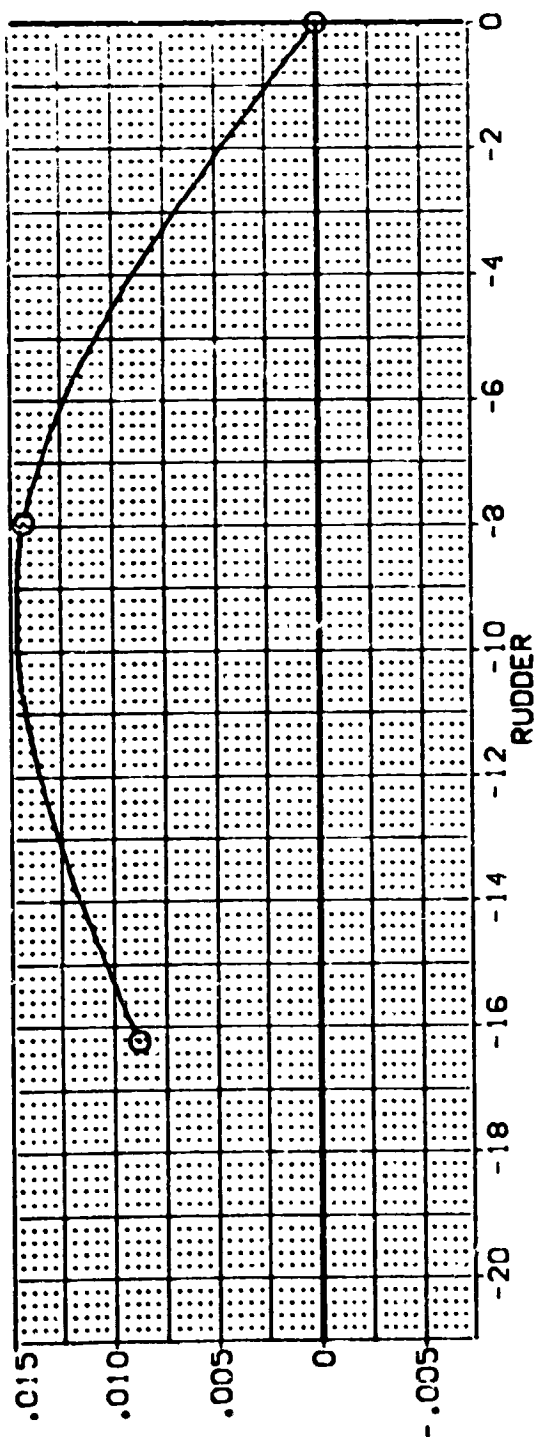


FIG 68 RUDDER EFFECTIVENESS, 85 DEG. FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOILER	AILERON	REFERENCE INFORMATION
[027362]	DA628 B76C9 M758 V116E28V8P5X19	.000	.000	.000	.000	SRFF 4.4119 SC.F.T.
[027363]	DA628 B76C9 M758 V116E28V8P5X19	.5.000	.000	.000	.000	LRFF 19.2299 SC.F.T.
[027364]	DA628 B76C9 M758 V116E28V8P5X19	10.000	.000	.000	.000	BRFF 37.9329 SC.F.T.
[027365]	DA628 B76C9 M758 V116E28V8P5X19	15.000	.000	.000	.000	XRFF 43.5871 SC.F.T.
[027366]	DA628 B76C9 M758 V116E28V8P5X19	20.000	.000	.000	.000	YRFF 15.1875 SC.F.T.

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

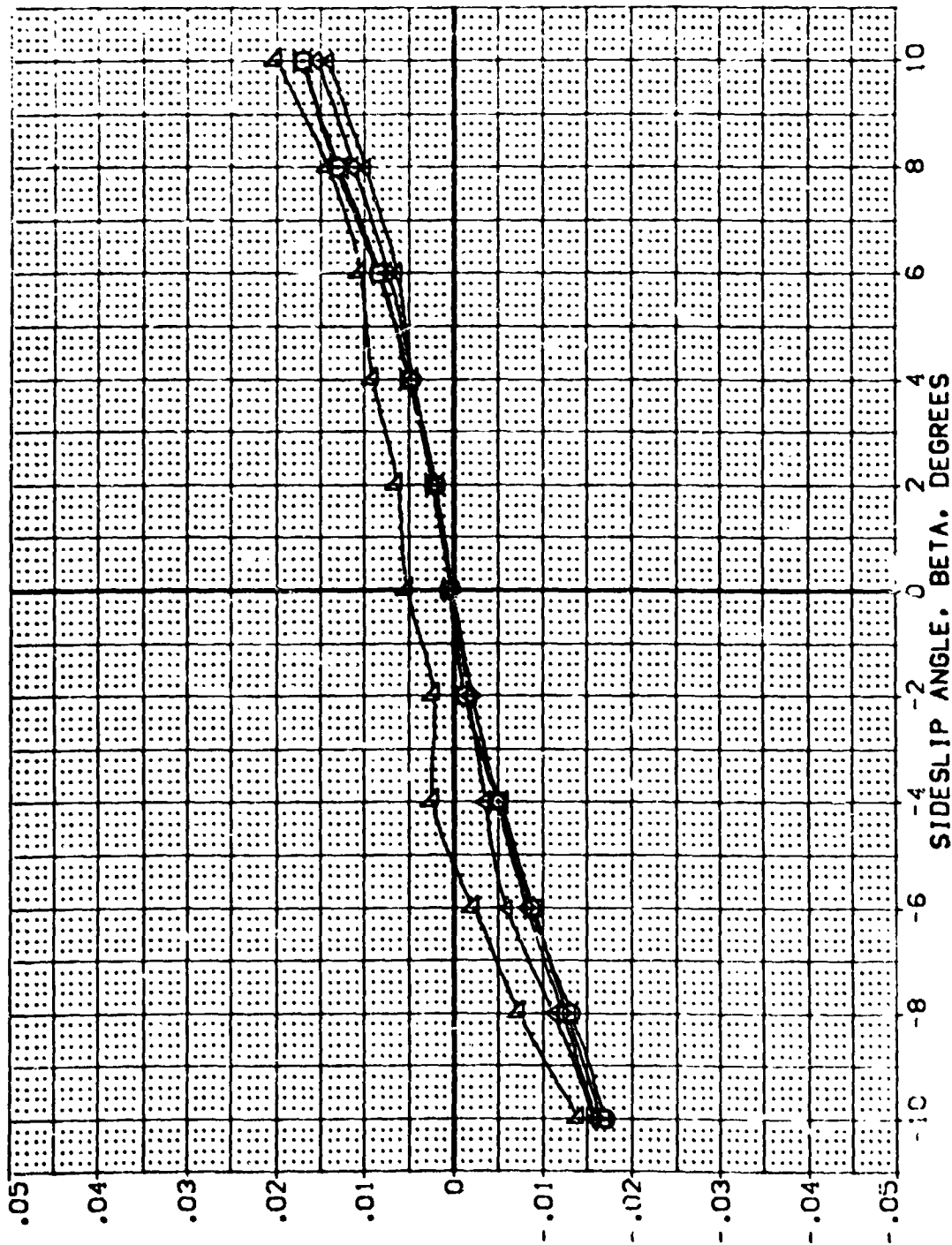
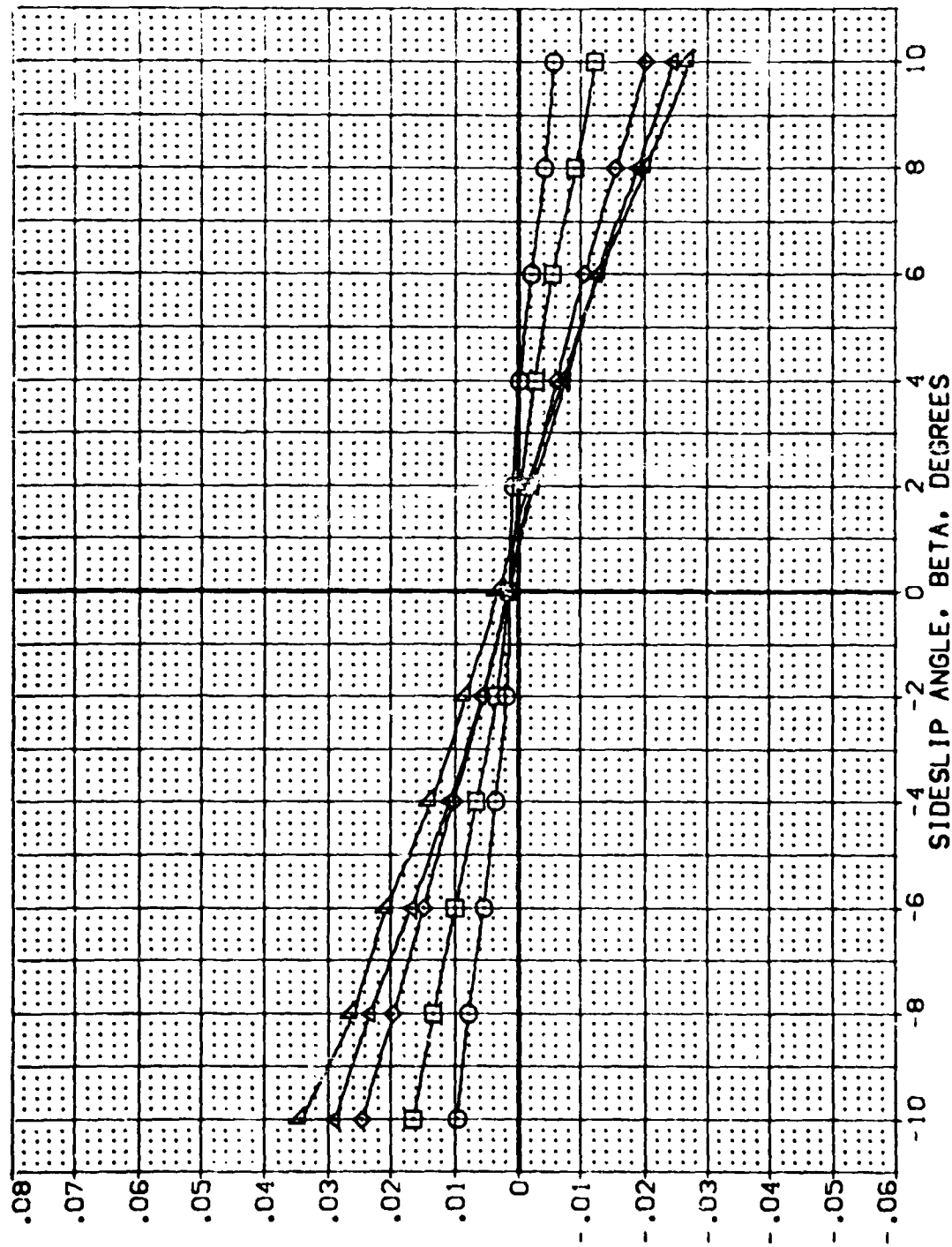


FIG 69 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.85 DEG.FLARE

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOILER	AIRLON	REFERENCE INFORMATION
(CDZ352)	0A628 B26C9 M718 V116E28/8P519	.000	.000	85.000	.000	SREF 4.4119 SC.F1
(CDZ353)	0A628 B26C9 M718 V116E28/8P519	5.000	.000	85.000	.000	LREF 19.2799 INC.F5
(CDZ354)	0A628 B26C9 M718 V116E28/8P519	10.000	.000	85.000	.000	BREF 37.9359 INC.F5
(CDZ355)	0A628 B26C9 M718 V116E28/8P519	15.000	.000	85.000	.000	XREF 43.5874 INC.F5
(CDZ356)	0A628 B26C9 M718 V116E28/8P519	20.000	.000	85.000	.000	YREF 15.1875 INC.F5
						SCALE .04C5



ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIG 69 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.85 DEG.FLARE

(A)MACH = .25

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CDJ352)	CA628	B76C9	M7F8	V116E28V85SX9
(CDJ353)	CA628	B76C9	M7F8	V116E28V85SX9
(CDJ354)	CA628	B76C9	M7F8	V116E28V85SX9
(CDJ355)	CA628	B76C9	M7F8	V116E28V85SX9
(CDJ356)	CA628	B76C9	M7F8	V116E28V85SX9

ALPHA RUDDER SPOBRK AILRON REFERENCE INFORMATION

.000	.000	.000	.000	SREF	4.4119	SO.F.T.
5.000	.000	.000	.000	LREF	19.2299	INC.F.S
10.000	.000	.000	.000	BREF	37.9359	INC.F.S
15.000	.000	.000	.000	XMRP	43.5574	INC.F.S
20.000	.000	.000	.000	YMRP	.0000	INC.F.S
				ZMRP	15.1875	INC.F.S
				SCALE	.0405	SCALE

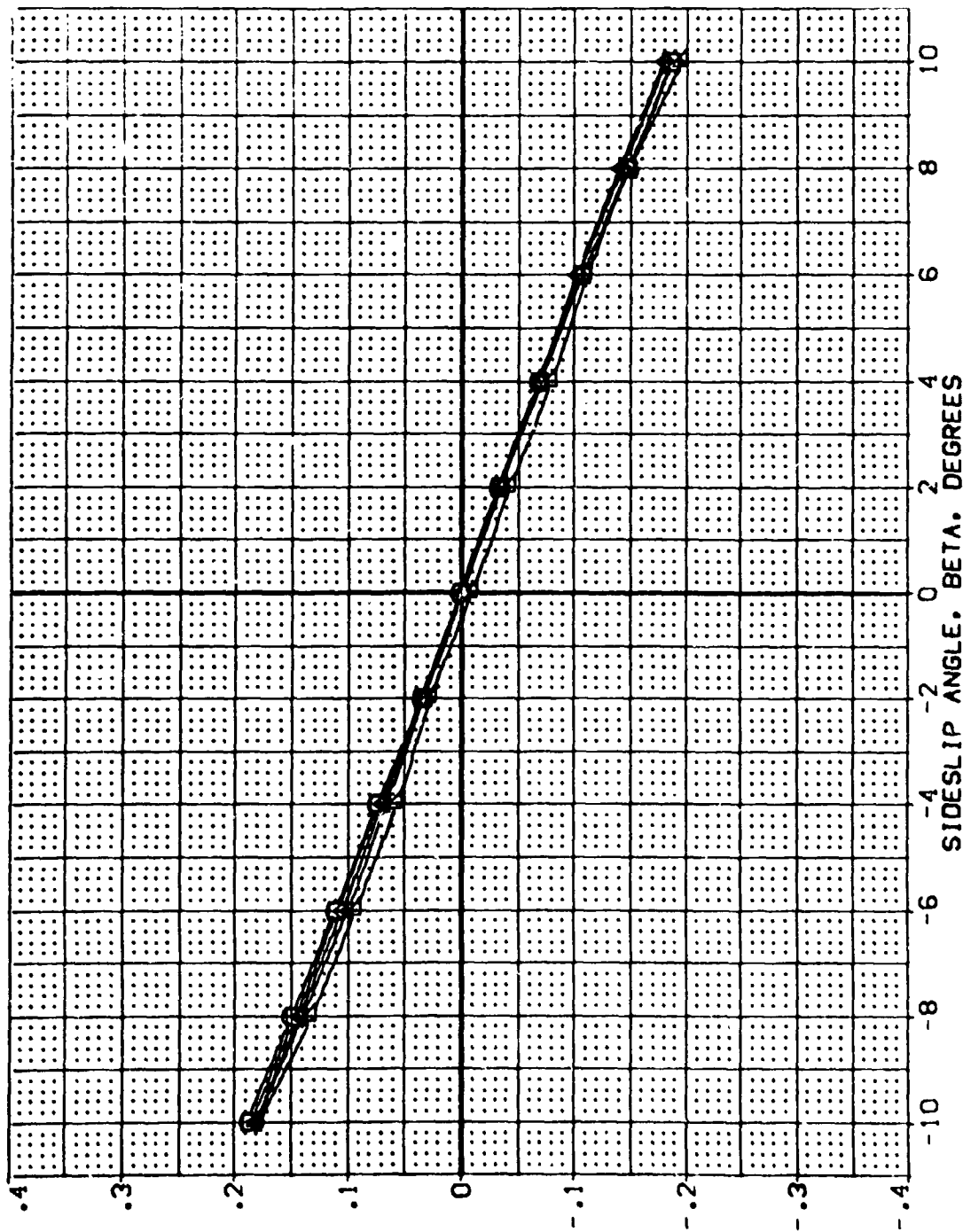


FIG 69 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 85 DEG.FLARE

(A)MACH = .26





(CDZ362)

0A62B B26C9 M7F8 W116E28V8R5X9

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

PARAMETRIC VALUES  
MACH .260 BOFLAP -12.000  
ELEVON .000 AILRON .000  
SPDRK 85.000

SYMBOL RUDER  
O .000

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

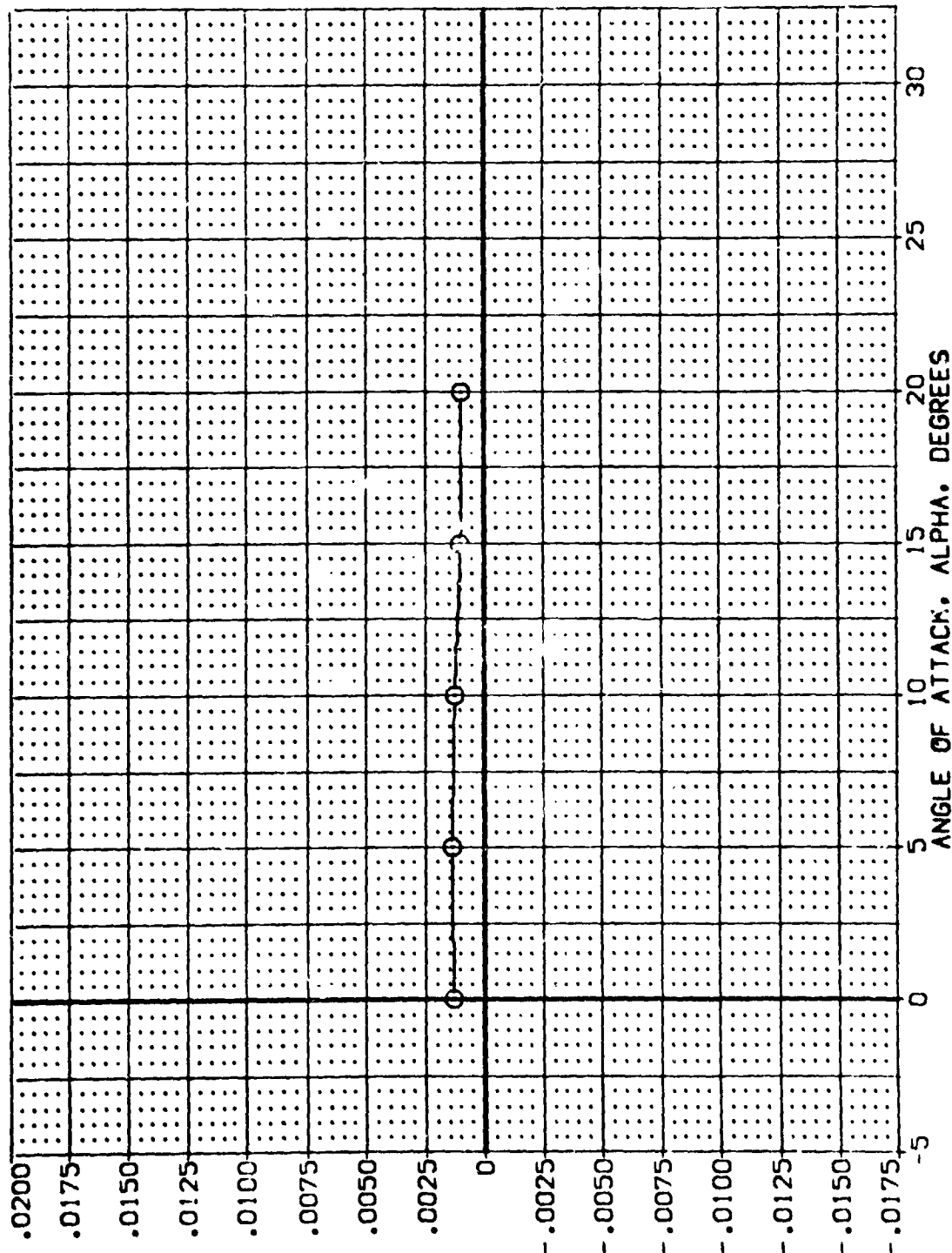


FIG 69 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0.85 DEG.FLARE

(CDZ362)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

RUDDER  
.000

MACH  
ELEVON  
SPDRK

PARAMETRIC VALUES  
.260 BOCLAP  
.000 AILRON  
85.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5874 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

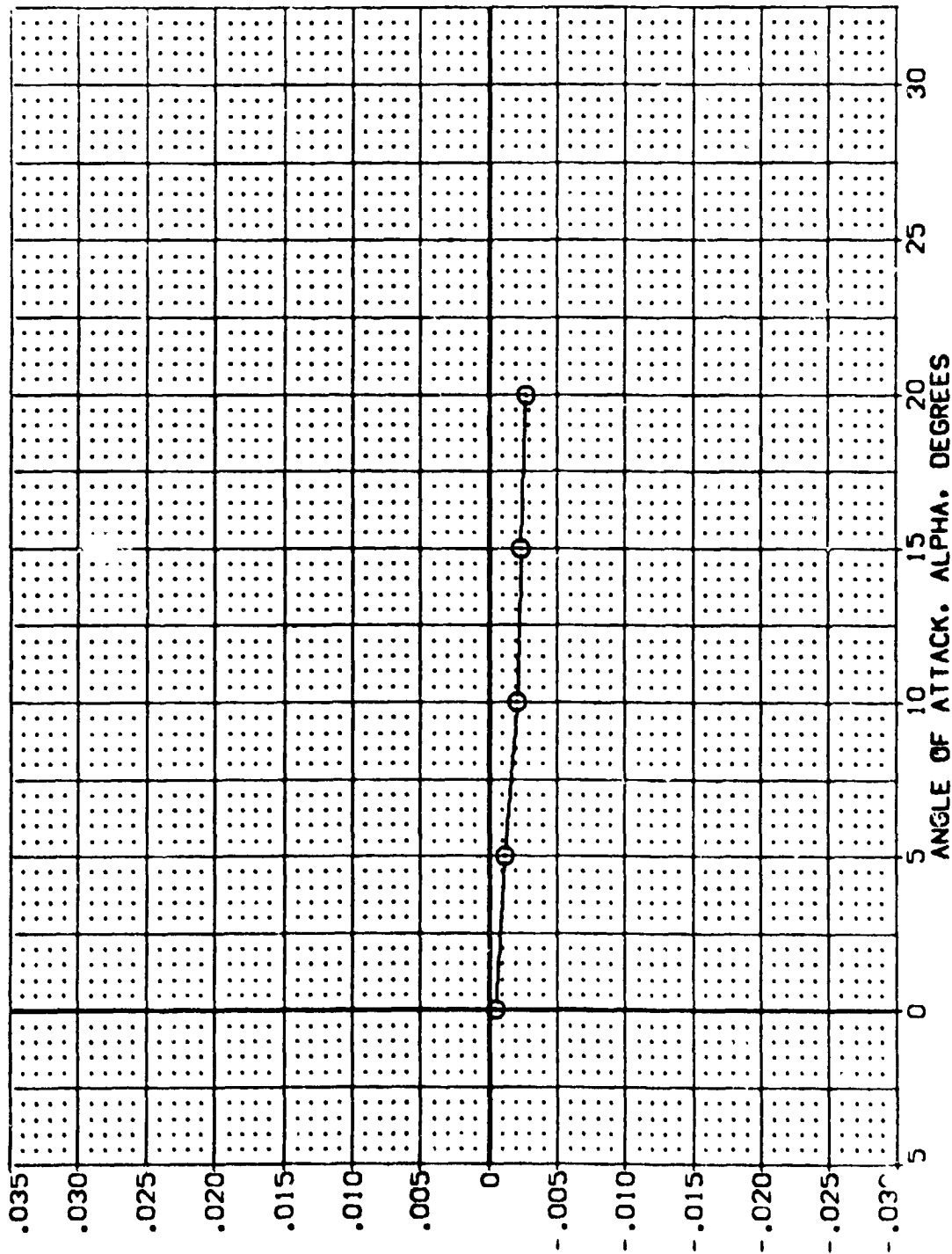


FIG 69 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 85 DEG.FLARE

(CDZ362)

smo. O

**RECEIVED**

WACH  
ELEVON  
SP080K

PARAMETRIC VALUES	
.260	BDF LAP
.000	AIR ON
85.000	

-12.000  
.000

	SPREF	4.4119	SO.FT.
	LREF	19.2299	INC.E\$
	BREF	37.9359	INC.E\$
	XMPR	43.5974	INC.E\$
	YMPR	.0000	INC.E\$
	ZMPR	15.1875	INC.E\$
		.04C5	SCALE

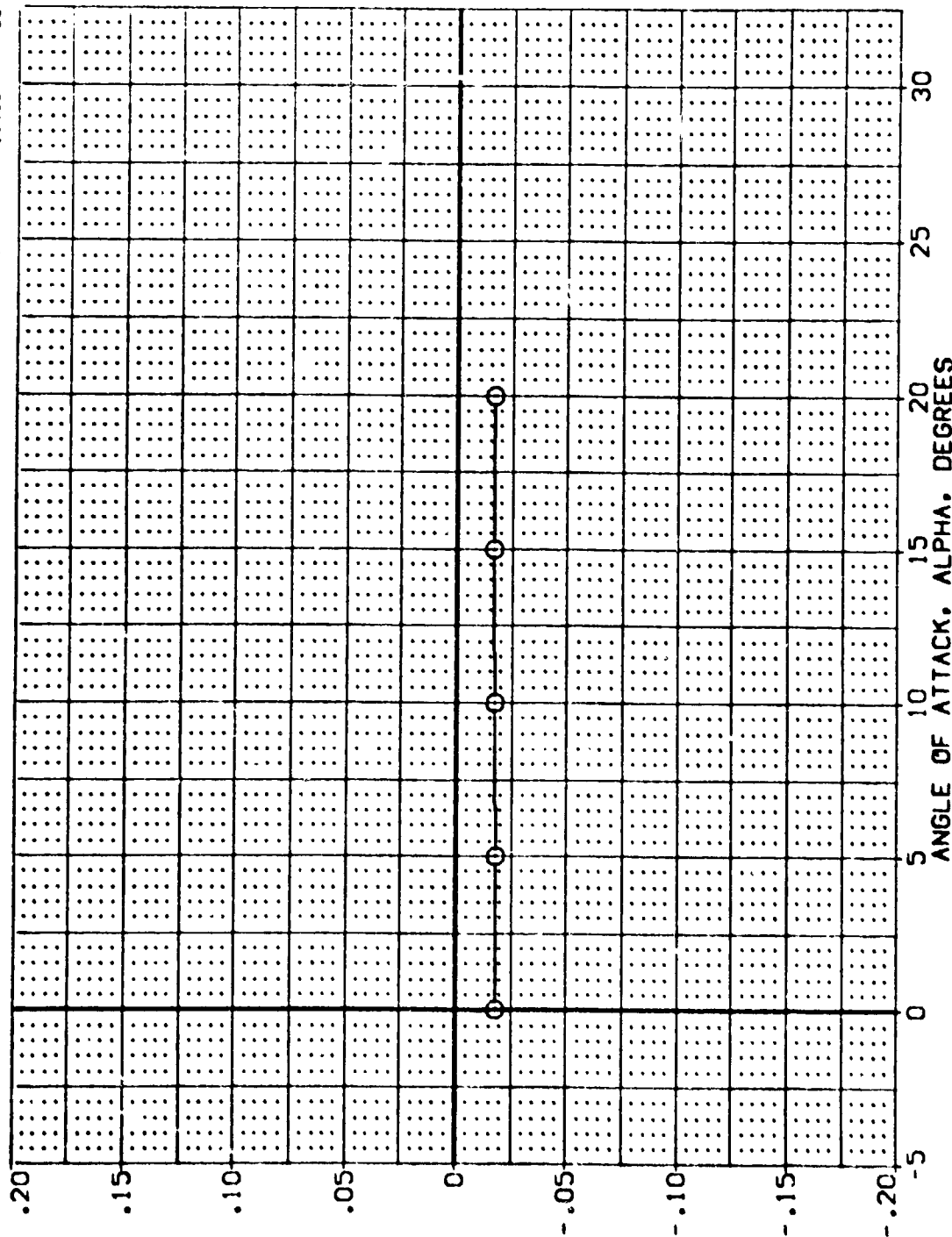


FIG 69 LATERAL-DIRECTIONAL STABILITY, RUDDER = 0, 85 DEG.FLARE

DATA SET SYMBOL	CONF	DESCRIPTION	ALPHA	RUDDER	SPOBRK	RON	REFERENCE INFORMATION
[R02189]	0A628	B26C9	M7F 8	V116E 28/BRFSX9			SREF 4.4119 SQ.FT.
[R02190]	0A628	B26C9	M7F 8	V116E 28/BRFSX9			LREF 19.2299 INCHES
[R02191]	0A628	B26C9	M7F 8	V116E 28/BRFSX9			BREF 37.9359 INCHES
[R02192]	0A628	B26C9	M7F 8	V116E 28/BRFSX9			XMRP 43.5974 INCHES
[R02193]	0A628	B26C9	M7F 8	V116E 28/BRFSX9			YMRP .0000 INCHES
							ZMRP 15.1875 INCHES
							SCALE .0405

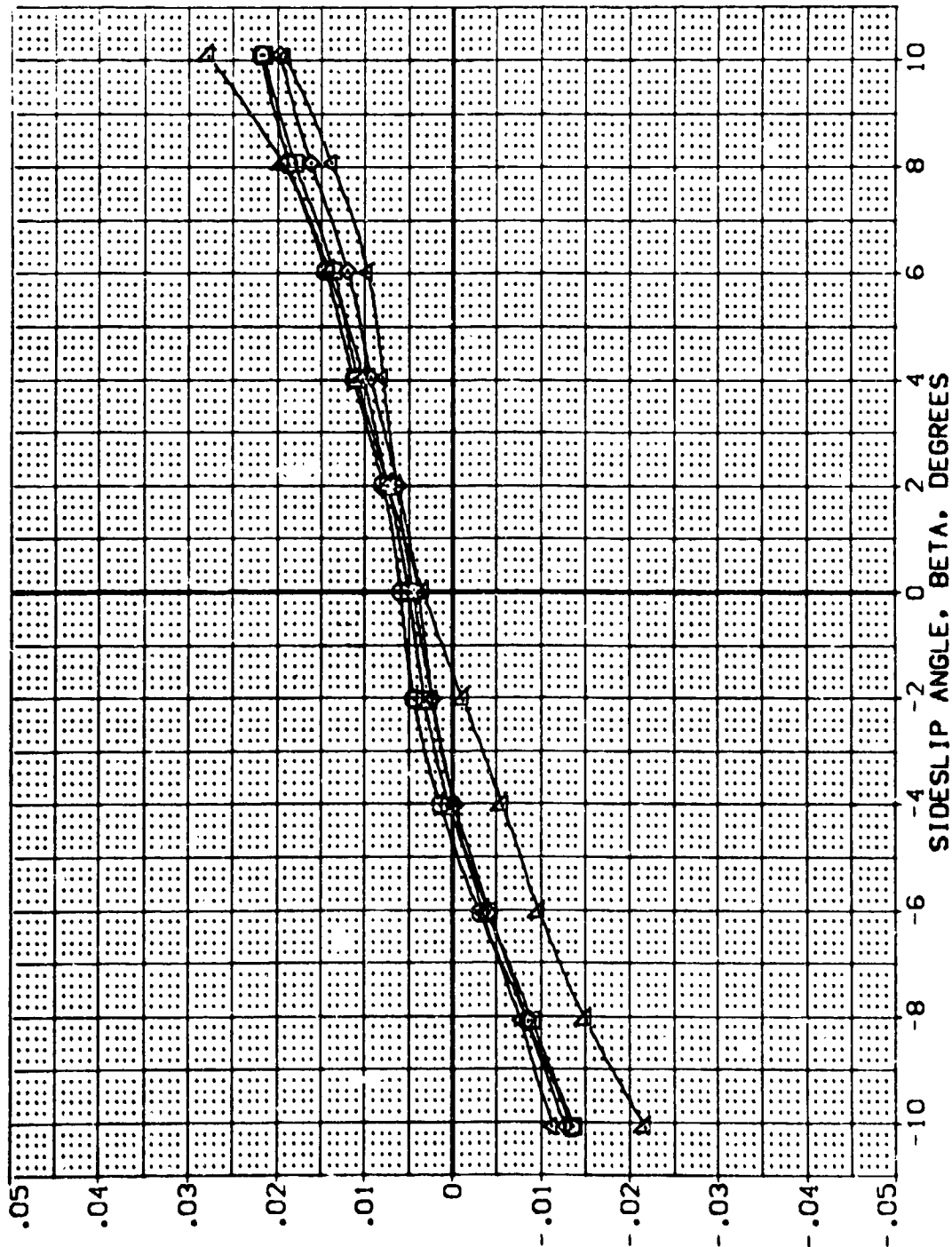


FIG 70 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 85 DEG.FLARE

(AJMACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRBK	AILRON	REFERENCE INFORMATION
(RDZ188)	0A628 B26C9 MTF8 V116E28V8P5X9	.000	-7.960	85.000	.000	SREF 4.4119 SO.FT
(RDZ190)	0A628 B26C9 MTF8 V116E28V8P5X9	5.000	-7.960	85.000	.000	LREF 19.2799 INCHES
(RDZ191)	0A628 B26C9 MTF8 V116E28V8P5X9	10.000	-7.960	85.000	.000	BREF 37.9359 INCHES
(RDZ192)	0A628 B26C9 MTF8 V116E28V8P5X9	15.000	-7.960	85.000	.000	YMRP 43.5974 INCHES
(RDZ193)	0A628 B26C9 MTF8 V116E28V8P5X9	20.000	-7.960	85.000	.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES

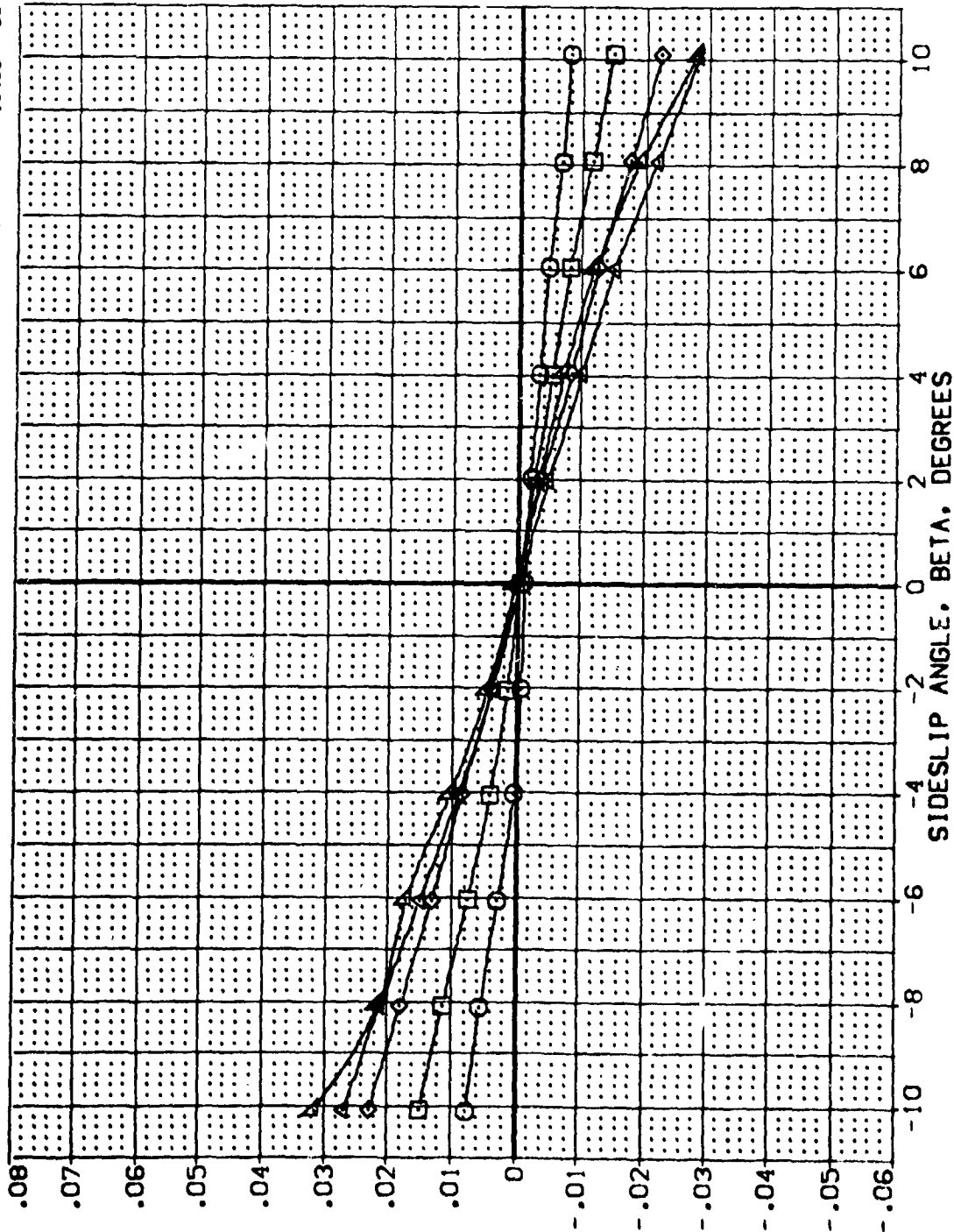


FIG 70 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 85 DEG.FLARE

(M)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AIRLON	REFERENCE INFORMATION
[R02189]	DA628 B26C9 M7F8 V116E28V8P5X9	.000	-7.960	85.000	.000	SREF 4.4119 SQ.FT
[R02190]	DA628 B26C9 M7F8 V116E28V8P5X9	5.000	-7.960	85.000	.000	LREF 19.2299 INCHES
[R02191]	DA628 B26C9 M7F8 V116E28V8P5X9	10.000	-7.960	85.000	.000	BREF 37.9359 INCHES
[R02192]	DA628 B26C9 M7F8 V116E28V8P5X9	15.000	-7.960	85.000	.000	XMRP 43.5974 INCHES
[R02193]	DA628 B26C9 M7F8 V116E28V8P5X9	20.000	-7.960	85.000	.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .0405

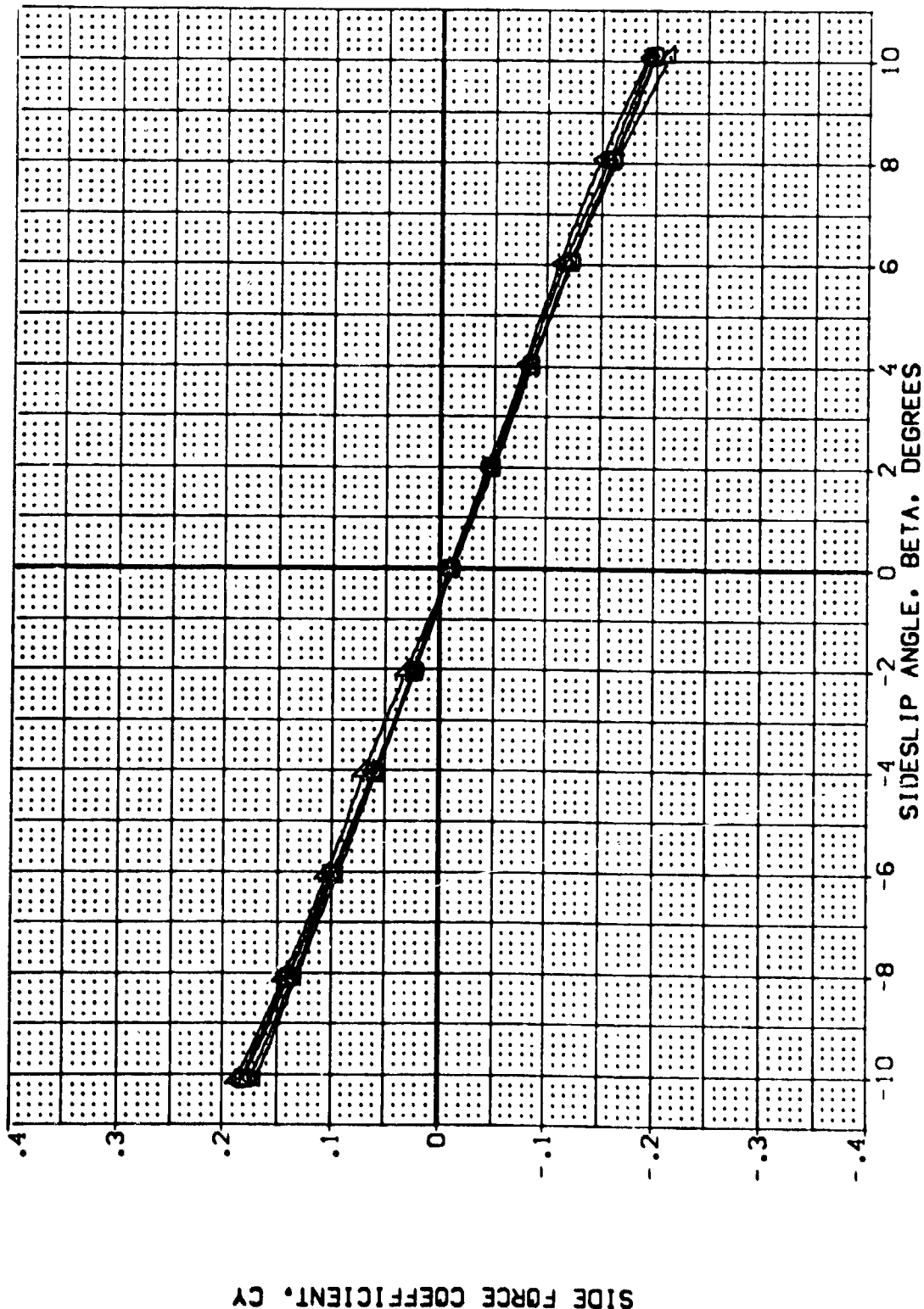


FIG 70 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 85 DEG.FLARE

(A)MACH = .26

0A628 B26C9 M7F8 W116E28V8R5X9

(C0Z189)

SYMBOL  
O

RUDDER  
-7.960  
MACH  
ELEVON  
SPDRX

PARAMETRIC VALUES  
.250 BOFLAP  
.000 AILRON  
95.000

-12.000  
.000

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.2295 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405 SCALE

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

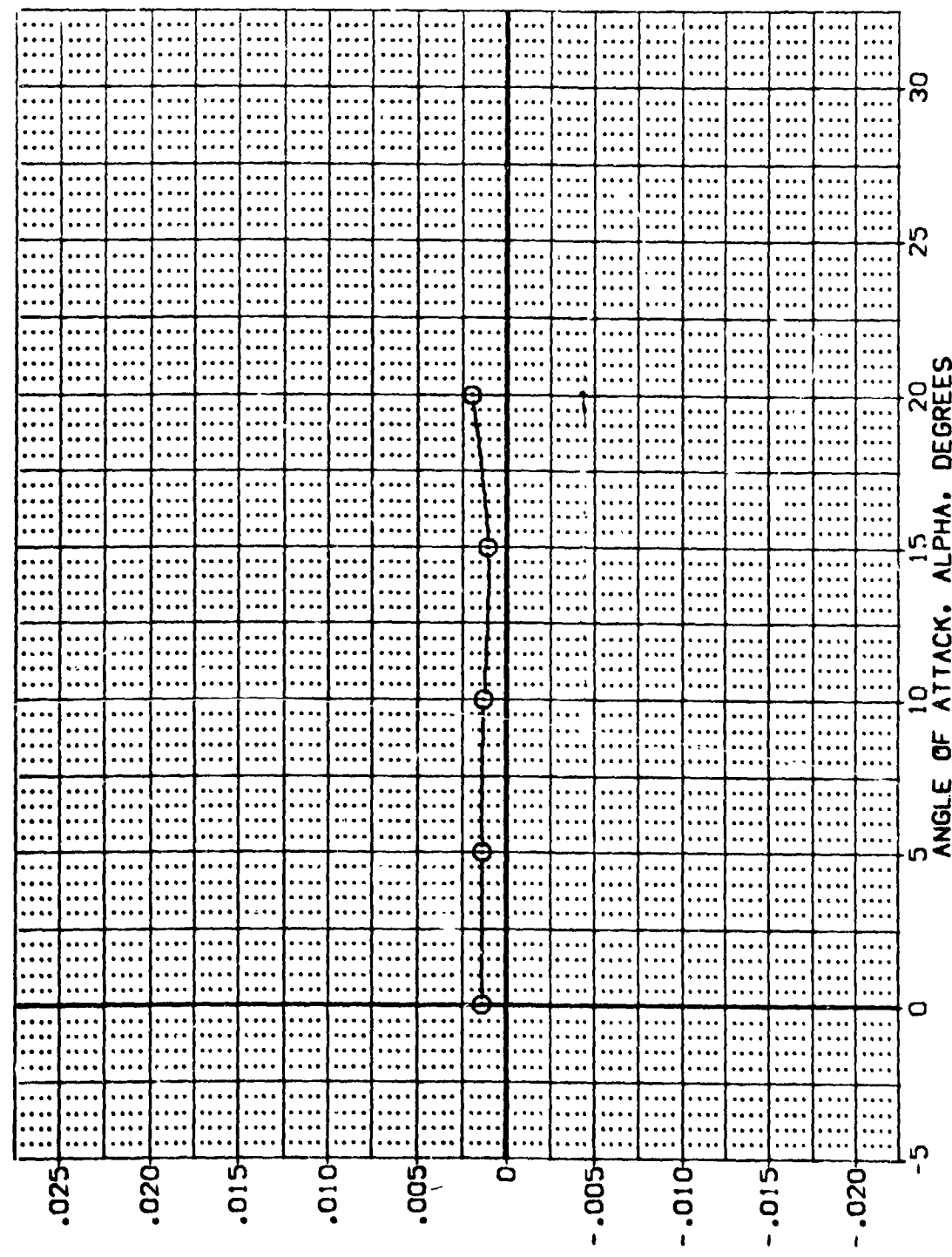


FIG 70 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 85 DEG.FLARE

(CDZ189)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL 0  
RUDDER -7.960  
MAC 1  
ELEV IN .000  
SPDR% 85.000  
PARAMETRIC VALUES  
BOFLAP -12.000  
AILRON .000  
SREF 4.4119  
LREF 19.2299  
BREF 37.9359  
XMRP 43.5974  
YMRP .0000  
ZMRP 15.1875  
SCALE .0405  
REFERENCE INFORMATION  
SQ.FT. INCHES  
INCHES INCHES  
INCHES INCHES  
INCHES INCHES  
SCALE

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

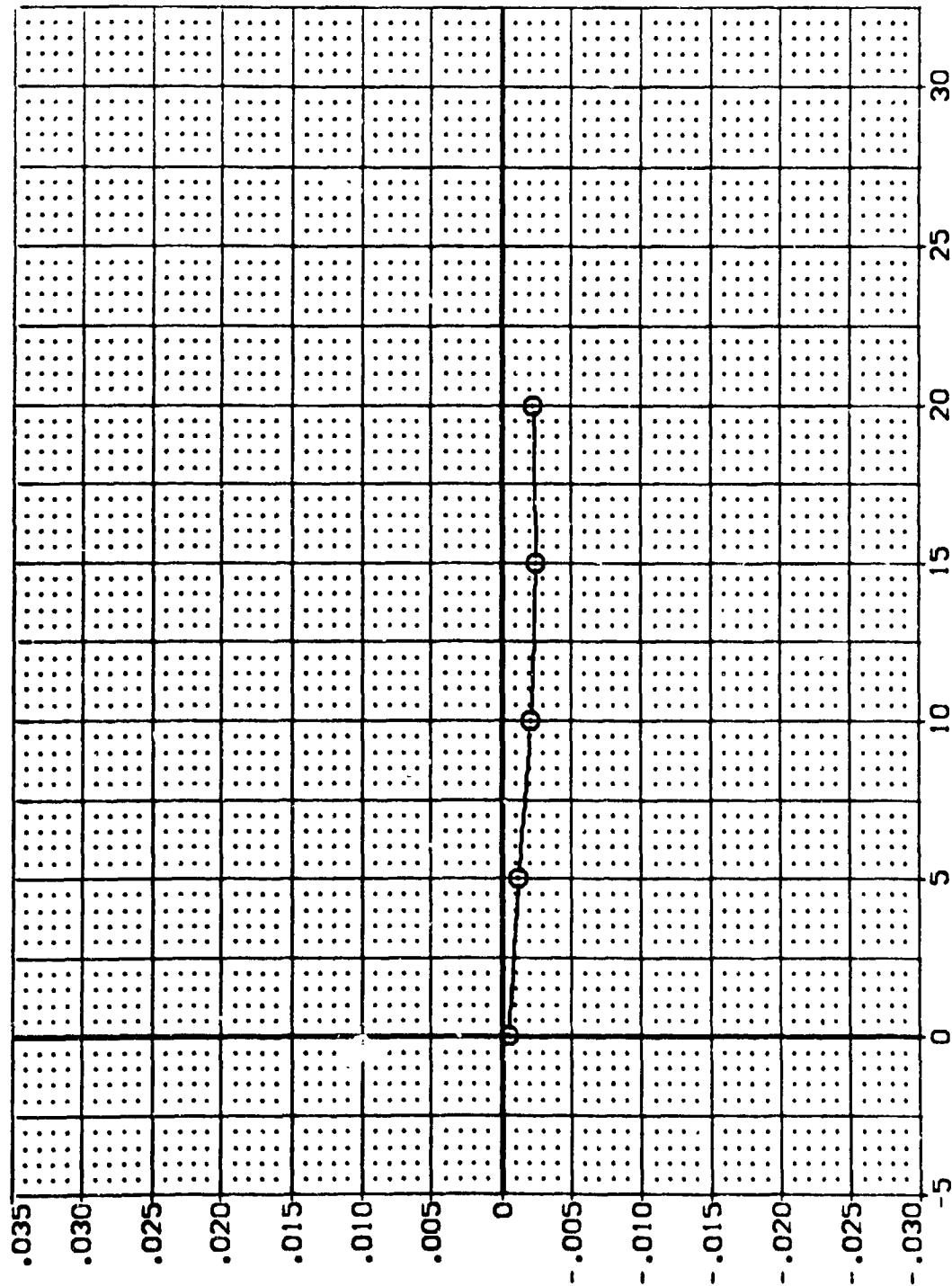


FIG 70 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 85 DEG.FLARE





0A628 B26C9 M7F8 W116E28V8R5X9 (CDZ189)

SYMBOL: O

RUDDER: -7.960

PARAMETRIC VALUES

MACH	.260	BD LAP	-12.000
ELEVON	.000	AILRON	.000
SPOBRK	65.000		

REFERENCE INFORMATION

SREF	4.4119	SC.FT
LREF	19.2798	INCHES
BREF	37.9359	INCHES
XMRP	43.5974	INCHES
YMRP	.0000	INCHES
ZMRP	15.1875	INCHES
SCALE	.0405	SCALE

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

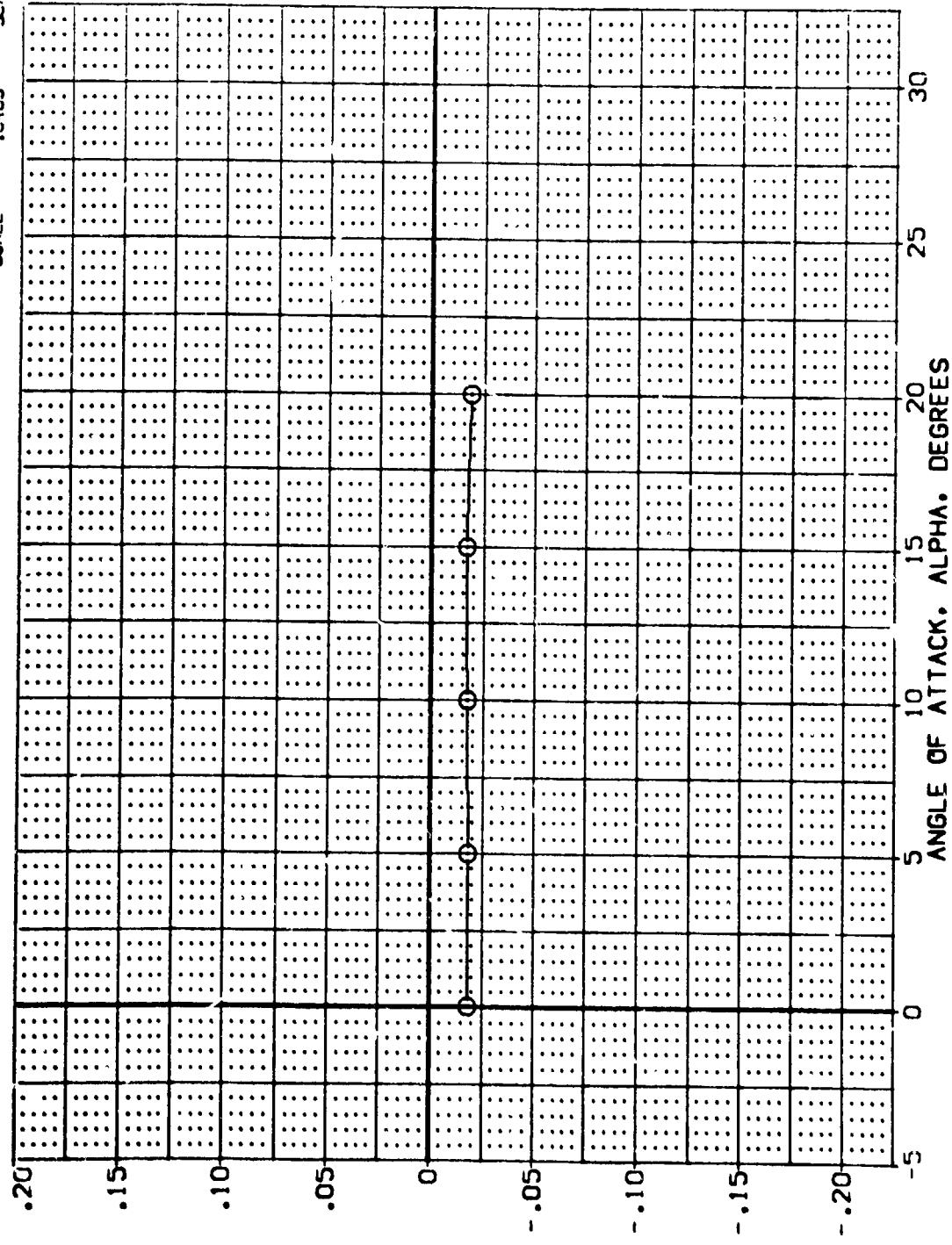


FIG 70 LATERAL-DIRECTIONAL STABILITY, RUDDER = -7.96, 85 DEG.FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRBK	AIRLON	REFERENCE INFORMATION
(R02195)	0A628 B26C9 M7F8 V116E28V85X9	.000	-16.220	95.000	.000	SREF 4.4119 SQ.FT
(R02196)	0A628 B26C9 M7F8 V116E28V85X9	.000	-16.220	95.000	.000	LREF 19.2799 INCHES
(R02197)	0A628 B26C9 M7F8 V116E28V85X9	.000	-16.220	95.000	.000	BREF 37.9359 INCHES
(R02198)	0A628 B26C9 M7F8 V116E28V85X9	.000	-16.220	95.000	.000	YMRP 43.5974 INCHES
(R02199)	0A628 B26C9 M7F8 V116E28V85X9	.000	-16.220	95.000	.000	ZMRP .0000 INCHES
						SCALE 15.1875 INCHES

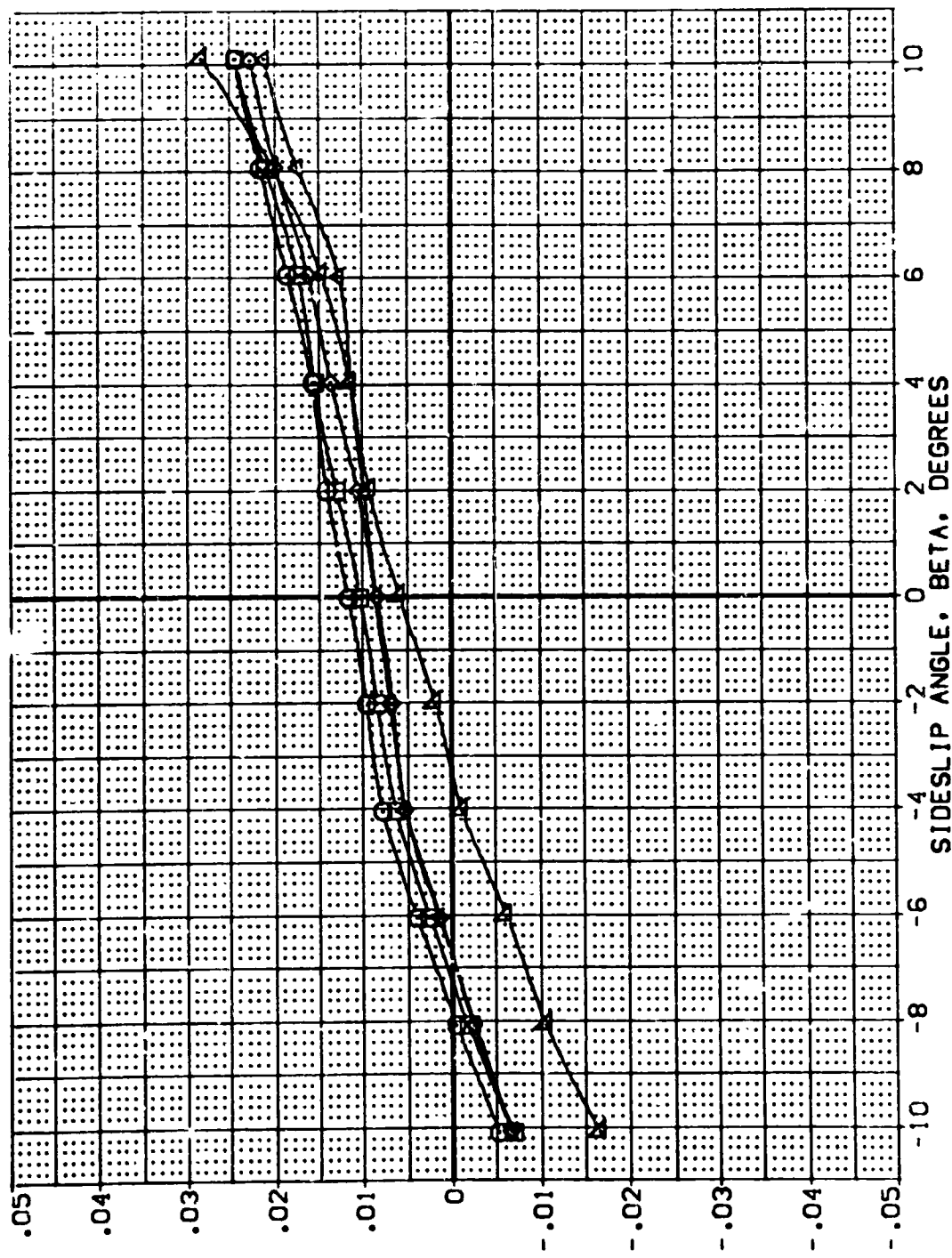
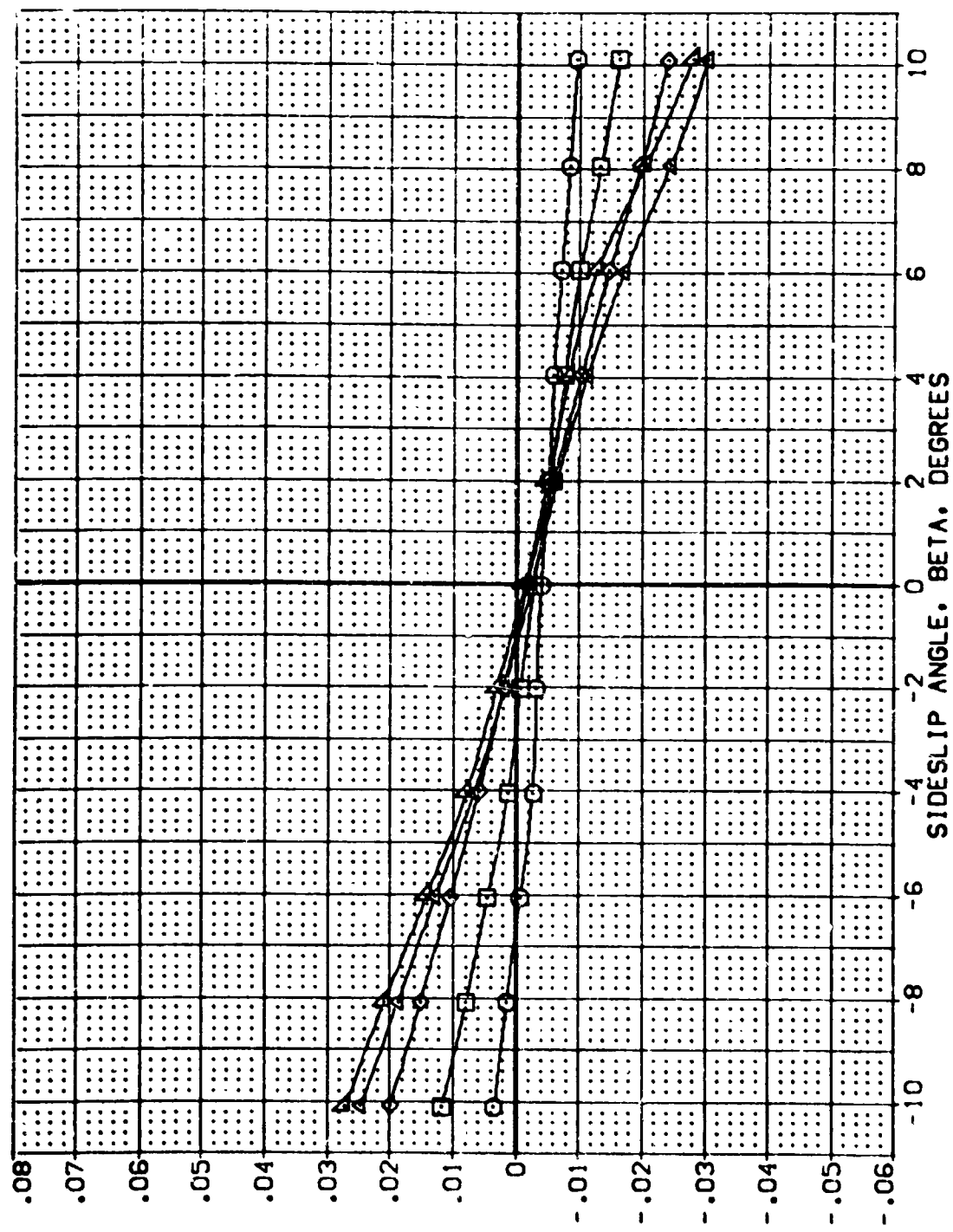


FIG 71 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 85 DEG.FLARE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPDRBK	AILRON	REFERENCE INFORMATION
[RD2195]	04628 B26C9 MTF 8 V116E28V875X9	.000	-16.220	85.000	.000	SRF 4.4119 SQ.FT.
[RD2196]	04628 B26C9 MTF 8 V116E28V875X9	5.000	-16.220	85.000	.000	LRF 19.2759
[RD2197]	04628 B26C9 MTF 8 V116E28V875X9	10.000	-16.220	85.000	.000	BRF 37.9359
[RD2198]	04628 B26C9 MTF 8 V116E28V875X9	15.000	-16.220	85.000	.000	XMRP 43.5874
[RD2199]	04628 B26C9 MTF 8 V116E28V875X9	20.000	-16.220	85.000	.000	YMRP 15.0000
						ZMRP 15.1873
						SCALE .0405



ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIG 71 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 85 DEG.FLARE

(M)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	SPOBRK	AIRLON	REFERENCE INFORMATION
(R02195)	04528 B26C9 M7F8 V116E28V8PSX9	.000	-16.220	85.000	.000	SREF 4.4119 SQ.FT.
(R02196)	04528 B26C9 M7F8 V116E28V8PSX9	5.000	-16.220	85.000	.000	LREF 19.2799 INCHES
(R02197)	04528 B26C9 M7F8 V116E28V8PSX9	10.000	-16.220	85.000	.000	BREF 37.9359 INCHES
(R02198)	04528 B26C9 M7F8 V116E28V8PSX9	15.000	-16.220	85.000	.000	XMRP 43.5974 INCHES
(R02199)	04528 B26C9 M7F8 V116E28V8PSX9	20.000	-16.220	85.000	.000	YMRP .0000 INCHES
						ZMRP 15.1875 INCHES
						SCALE .01CS

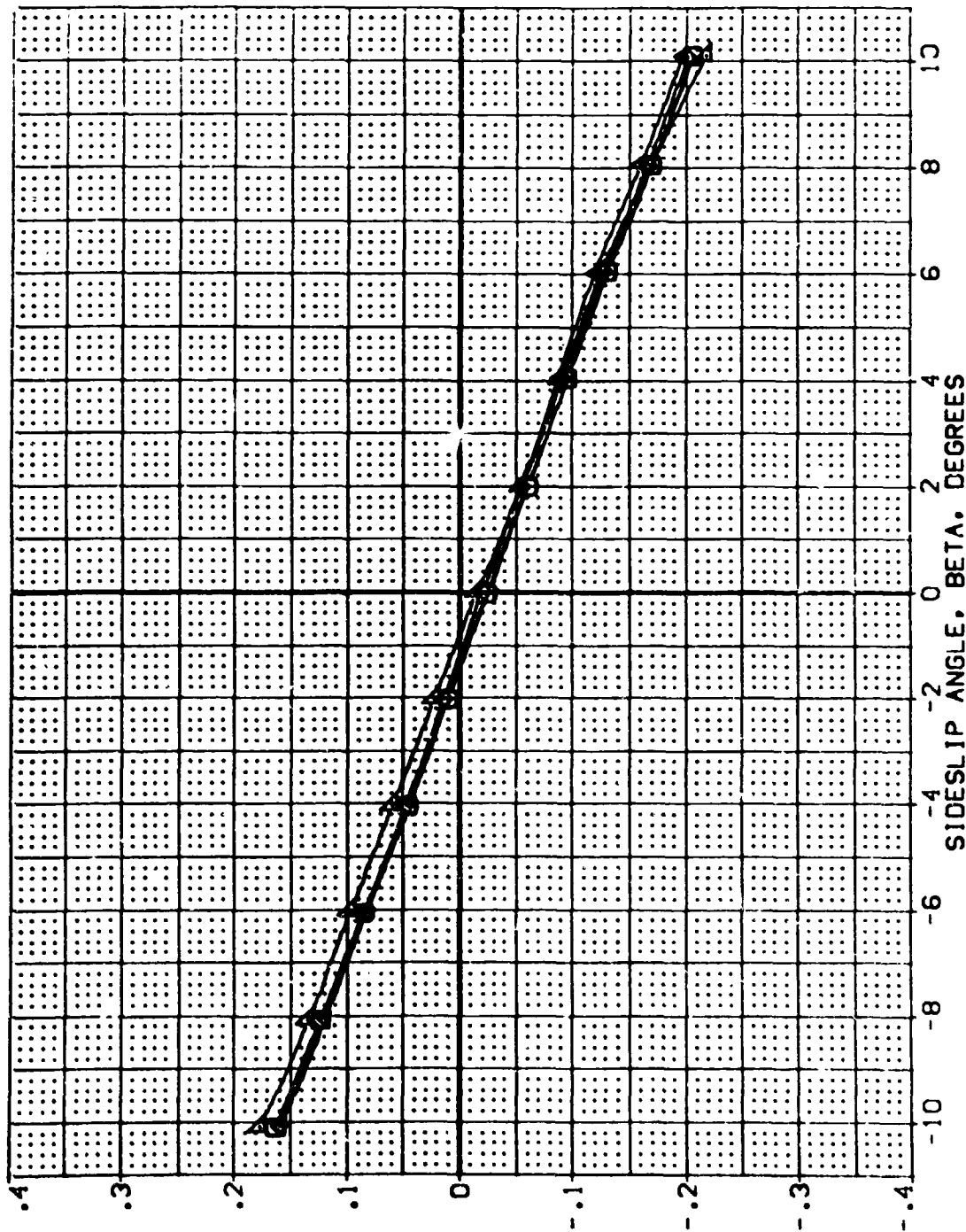


FIG 71 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 85 DEG.FLARE

(A)MACH = .26

(CDZ195)

0A62B B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

PARAMETRIC VALUES  
MACH .760 BD FLAP -12.000  
ELEVON .000 AILRON .000  
SPDRK 85.000

REFERENCE INFORMATION  
SREF 4.4118 SQ.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5974 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

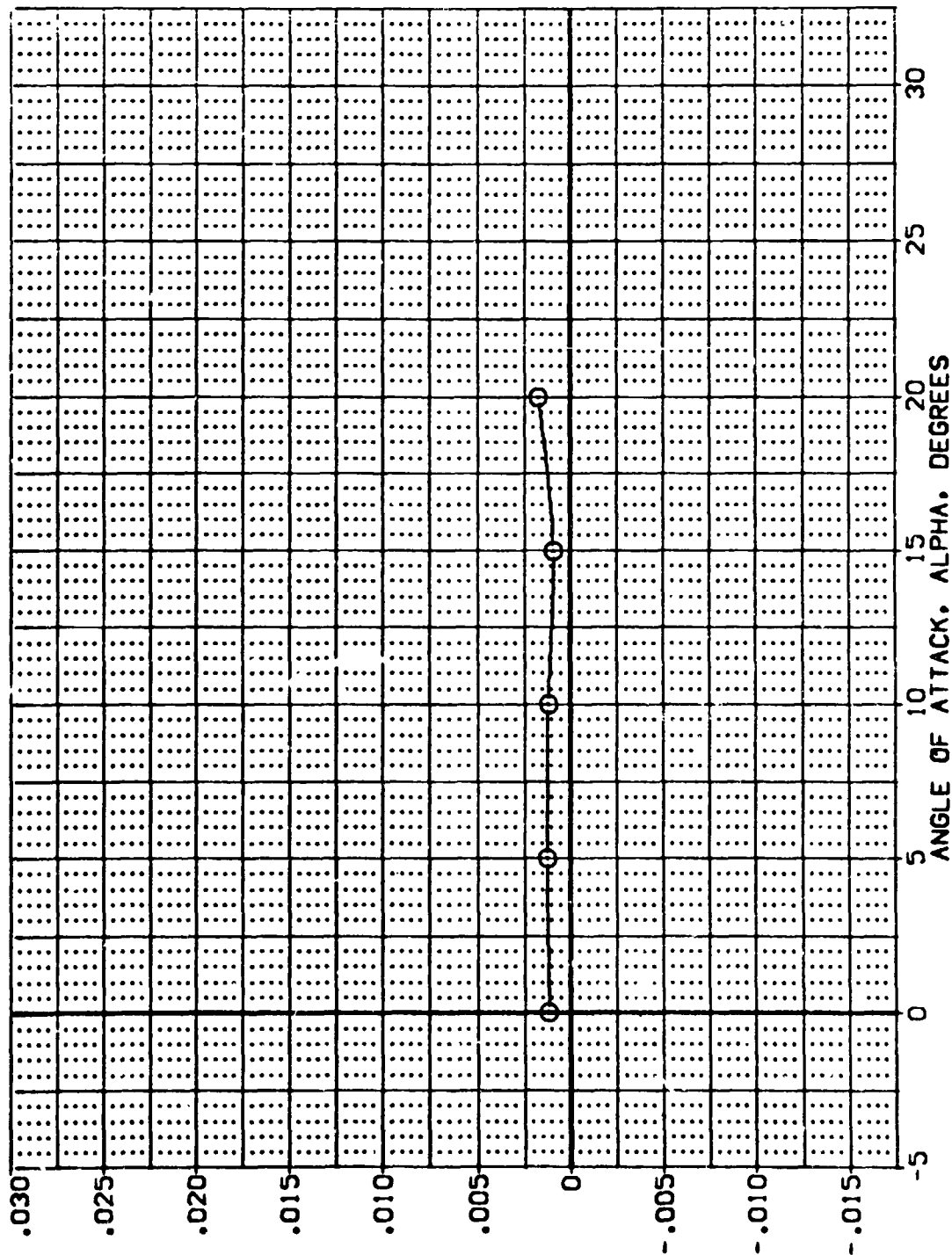


FIG 71 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 85 DEG.FLARE

(CDZ195)

0A628 B26C9 M7F8 W116E28V8R5X9

SYMBOL  
O

PARAMETRIC VALUES  
MACH .260  
ELEVON .000  
SPOBRK 85.000

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

REFERENCE INFORMATION  
SREF 4.4119 SO.FT.  
LREF 19.2299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5874 INCHES  
YMRP .0000 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

RUDDER  
-16.220

BDCLAP -12.000  
AILRON .000

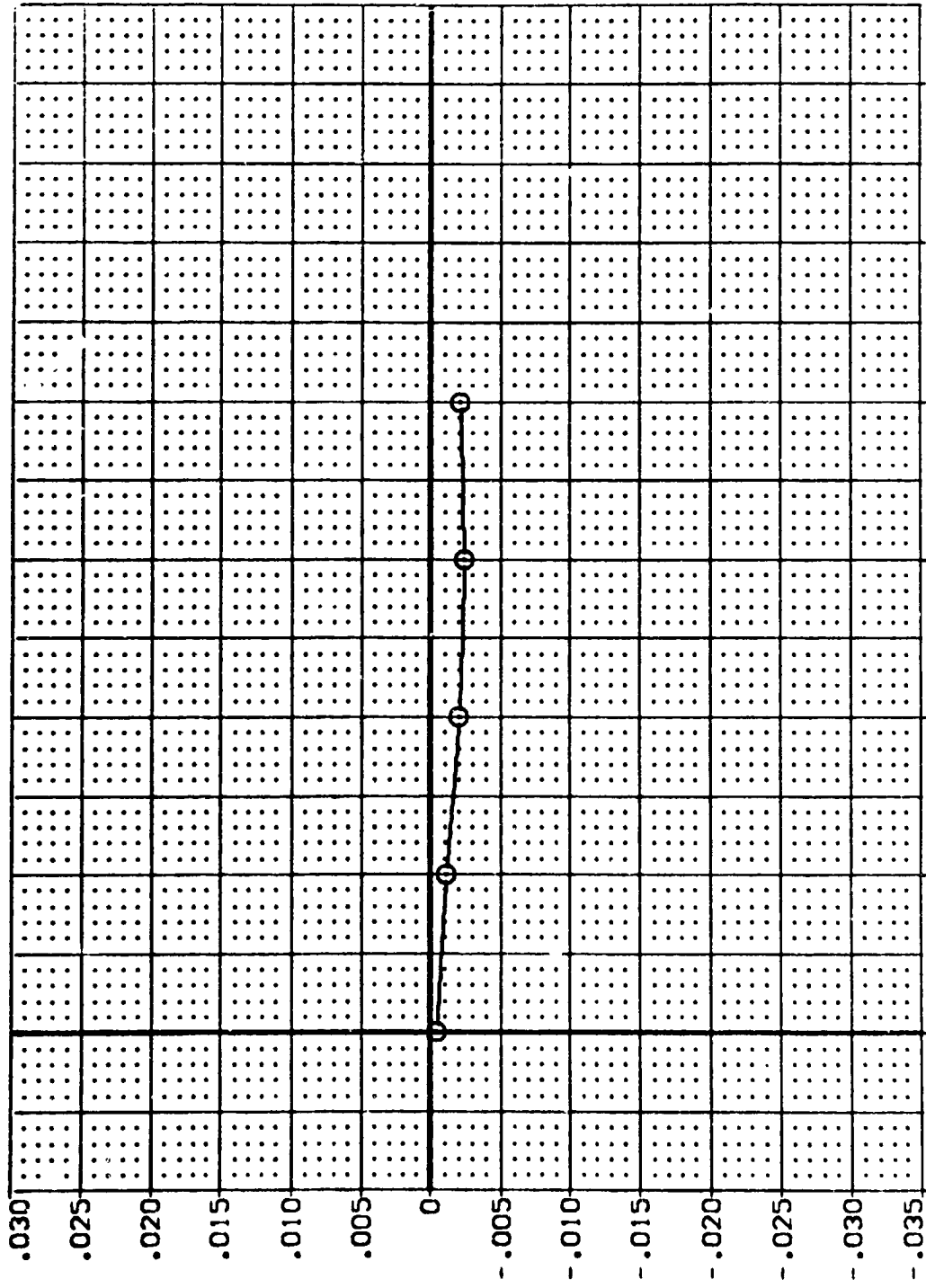


FIG 71 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 85 DEG.FLARE



0A62B 826C9 M7F8 W116E28V8R5X9 (C0Z195)

SYMBOL RUDDER -16.220 MACH ELEVON SPOBRK  
PARAMETRIC VALUES .260 BOFLAP -12.000  
.000 ATLRON .000  
86.000  
REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
LREF 19.7299 INCHES  
BREF 37.9359 INCHES  
XMRP 43.5874 INCHES  
YMRP 1000.1 INCHES  
ZMRP 15.1875 INCHES  
SCALE .0405

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

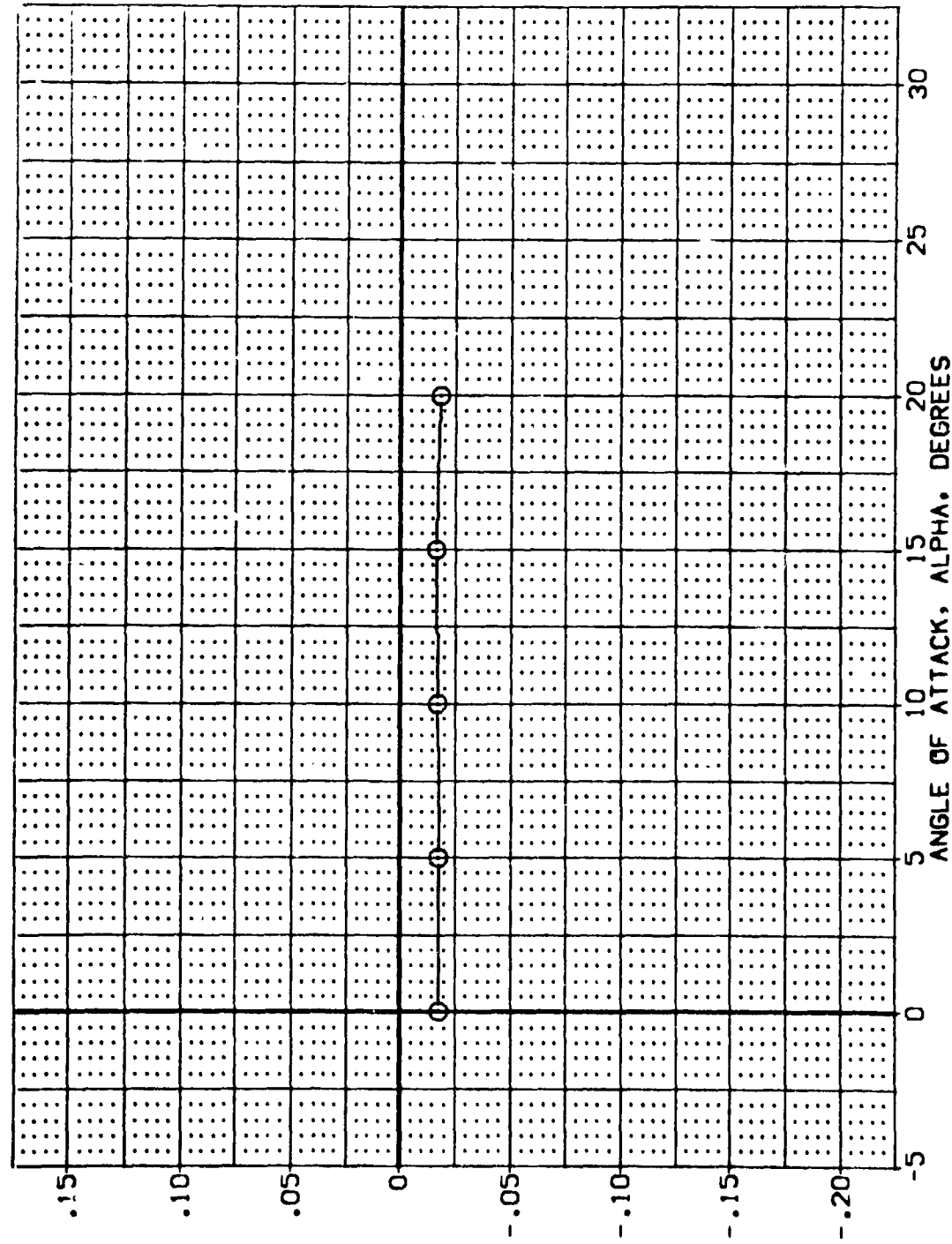


FIG 71 LATERAL-DIRECTIONAL STABILITY, RUDDER = -16.22, 85 DEG.FLARE